AGRICULTURE AND NATURAL RESOURCES SECTOR PROGRAM ASSESSMENT

A. Introduction

1. Indonesia is a large sprawling archipelago spread across more than 17,000 islands, of which about 6,000 are inhabited. It has a population of about 270 million.\(^1\) The country is endowed with many natural resources, including forests, coral reefs, aquaculture, petroleum, natural gas, and water resources. Indonesia has a multilayered decentralized democratic system of national, provincial, district, and lower-level government. It has 34 provinces and 514 districts and a decentralized system of administration was adopted after the 1997 Asian financial crisis.\(^2\) Between 35% and 40% of total public expenditure relates to the lower levels of public administration.\(^3\)

2. Indonesia is a middle-income country, actively linked with global markets with varying levels of competitiveness across sectors. Its trillion-dollar economy is the largest of the Association of Southeast Asian Nations (ASEAN) countries. Indonesia is a member of G20 and its regional and global links are important both for itself and for the wider ASEAN region. The growth in the economy is driven by natural resources and commodities, including coal, palm oil, and extractive industries. Indonesia’s annual exports grew annually by an average of 5.7% during 2005–2017, reaching $168.6 billion in 2017. Given the predominance of commodities in the economy, Indonesia experiences high volatility due to fluctuations in global commodity prices.

3. Poverty has been declining. As a result of rapid economic growth over a number of decades (except during the 1997 Asian financial crisis), Indonesia has steadily reduced extreme poverty to less than 10% of the total population. However, it still contains a large population of extremely poor and near-poor that remains vulnerable to adverse economic fluctuations. Poverty is largely concentrated in rural and remote locations. These poor areas are sparsely populated and have little infrastructure. Indonesia’s Gini index was 0.39 (2017).\(^4\) Most of the rural poor are landless or engaged in small-scale agricultural activity, with a high dependence on natural resources.

B. Sector Context

4. Agriculture and food security. Although the agriculture sector in Indonesia has been growing at an average rate of about 4% per annum, productivity has remained low. The major reasons for low productivity include small and fragmented landholdings, landlessness, shallow rural financial markets, and inadequate investment in rural infrastructure and technology. Uneven agricultural productivity combined with a growing population and increasing per capita incomes has increased demand for food imports.\(^5\) There are only limited opportunities for off-farm employment in rural areas.\(^6\) Asian Development Bank (ADB) operations in the agriculture and natural resources (ANR) sector in Indonesia have been in the following major areas:\(^7\)

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\(^1\) Total fertility rate in Indonesia has steadily declined from 5.66 in 1960 to 2.36 in 2016.
\(^4\) IMF. 2018. 2017 Article IV Consultation—Staff Report. Washington, D.C.
\(^5\) Food imports as a percentage of merchandise imports increased during the country assistance program evaluation (CAPE) period from 8.1% in 2005 to 11.9% in 2017 (World Bank, World Development Index).
\(^6\) In response to the problems related to low productivity in the agriculture sector, the IMF suggested that Indonesia should “diversify the economy away from agriculture…” IMF. 2018. 2017 Article IV Consultation—Staff Report. Washington, D.C.
\(^7\) There is a thriving commercial palm oil sector in Indonesia which contributes significantly to Indonesian exports but it is not covered here under ANR. As per IMF estimates, palm oil exports at $18.4 billion are about 11% of Indonesia’s total exports (FOB).
(i) poverty reduction, livelihood, community development and rural infrastructure;
(ii) aquaculture, fisheries and marine resources;
(iii) water resources, and river basin management; and
(iv) social forestry

5. Environment and climate change. Rapid economic growth during the past 2 decades has caused environment degradation and pollution of air and water resources. Climate change is contributing to extreme weather events, including droughts, intense floods, forest fires, and storm surges. Indonesia is also vulnerable to periodic volcanic activity. People living in areas less than 5 meters above sea level, most of whom are poor, are vulnerable and at high risk of being affected by rising sea levels.  

6. The government’s National Medium-Term Development Plan, 2015–2019 sought inclusive and environmentally sustainable growth for all Indonesians. The plan emphasized inclusive growth and focused on food and energy security, maritime products, and tourism. It sought to foster regional equity through enhanced income opportunities across villages, border areas, and the country’s western and eastern regions. An important consideration was expanding opportunities for low-income households so they can participate in the growth process and become economically competitive. ADB operations generally supported the government’s development plans.

C. ADB Sector Strategy and Portfolio

7. During the period under review (2005–2018) there were three ADB country strategies and one interim strategy. Country strategy and program (CSP), 2006–2009, and country partnership strategy (CPS), 2012–2014, were followed by an interim strategy in 2015 and CPS, 2016–2019. These country strategies are briefly described below, paying particular attention to the most recent, CPS, 2016–2019.

8. CSP, 2006–2009 came after the initial recovery of the Indonesian economy from the 1997 Asian financial crisis. During 1998–2005, ADB extended financial support totaling $6.2 billion to Indonesia. Of this, about 90% was sourced from ADB’s ordinary capital resources (OCR) and about $606 million from the Asian Development Fund (ADF). During 2000–2006, operations were assisted by grant-financed technical assistance (TA) from a number of countries, including Australia, Canada, Denmark, the European Commission, France, the Netherlands, and the United Kingdom.

9. The operational plan of CSP, 2006–2009 echoed the priorities of the government. The CSP was realistic in its assessment of the development situation. It noted that the ANR sector was lagging in performance in comparison with other sectors, and that a number of ANR projects were not doing well. The CSP felt that it would be better if ADB used government procedures to implement its projects. This preference was suggested particularly for the Rural Infrastructure Support Project, which sought to ameliorate poverty, support the achievement of the Millennium Development Goals (MDGs), and provide rural infrastructure at the lower levels.

10. CSP, 2006–2009 noted that the 1997 Asian financial crisis, democratization, and decentralization had diluted the capacities of implementing agencies, especially at provincial, district, and lower levels. It noted that ADB’s lending and non-lending products might no longer be effective and that new approaches were needed. The results framework noted that natural resource management needed to be carried out on a more sustainable basis and to focus on increasing economic returns for the poor. CSP, 2006–2009 was assessed successful by the CPSFR.

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8 In 2010, about 3.61% of the total population in Indonesia lived in rural areas with less than 5 meters of elevation from sea level (World Bank, WDI).
10 Out of the total lending of $6.2 billion, the share of ANR in this period was only $396 million (6.4%).
11. By the time of CPS, 2012–2014, the Indonesian economy was registering steady increases in the growth rate. Indonesia’s overall debt and financial situation had improved significantly. The government’s National Medium-Term Plan, 2010–2014 reflected a more confident outlook. CPS, 2012–2014 described itself as “attuned to the needs of Indonesia as a large middle-income country.” Hence, ADB lending was to reflect a demand-driven and results-based approach. It was to be informed by a knowledge management strategy for the country.

12. In accordance with the government’s preference, lending was to move away from predominantly policy-based loans to project investments with a focus on inclusive growth and addressing environmental sustainability and climate change. ANR was to be the leading sector. Within ANR, operations were to focus on flood management, integrated water resource management (IWRM), irrigation systems, improved management of coral reefs, and forestry. The inclusion of coral reef and marine resource management was innovative but the CPS contained nothing about agricultural production or food security. Leveraging private sector participation was central to CPS, 2012–2014. The results framework noted the need for conservation and utilization of natural resources to support sustainable economic growth and increasing welfare of the people while anticipating and preparing to mitigate the effects of climate change.

13. The Interim CPS adopted in 2015 extended the CPS, 2012–2014 by 1 year in order to synchronize ADB’s strategy cycle with the country’s development plans. It continued to follow the two-pronged approach of the 2012–2014 strategy by focusing on inclusive growth and environmental sustainability, including climate change. It did, however, observe that the government wanted ADB to only focus on infrastructure, human development, and enabling economic policy reforms. The government’s message was that the country could manage its performance better if, instead of borrowing, it could utilize its own resources more efficiently. Hence, the interim strategy underscored ADB’s potential contribution in knowledge services.

14. The interim strategy articulated ADB’s approach to ANR more positively and with greater precision. It laid emphasis on “reducing poverty and increasing food security by improving agricultural and fisheries productivity and competitiveness, fostering income diversification, and improving the availability of bulk water supply for agricultural use.” However, the interim strategy covered only 1 year so was not a long-term ANR strategy.

15. CPS, 2016–2019 sought to focus on three priority areas: (i) improved infrastructure services, (ii) better economic governance, and (iii) enhanced human resource development. These priorities were broadly in line with the National Medium-Term Development Plan, 2015–2019. The CPS was also consistent with ADB’s previous operational approach. CPS, 2016–2019 was candid and correctly identified the crucial constraints that Indonesia had to negotiate to make further economic progress.

16. Deployment of new technologies and knowledge services, improvements in inter-agency coordination and governance, reducing spatial disparities, human resource development, and upgrading rural infrastructure were the main concerns of CPS, 2016–2019. Better management of water resources, marine, and coastal resources and forestry would support the all-round development of the ANR sector. Improvements in these areas were expected to result in higher agricultural productivity and more off-farm employment. These measures were intended to improve service delivery, ameliorate conditions of poverty and vulnerability, and strengthen the efficiency and competitiveness of the Indonesian economy.

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13 The stance in the interim strategy notwithstanding, during 2011–2015, the external debt as a percentage of gross domestic product increased from 25% to 36.1% (CPS, 2016–2019).
17. While targeting these objectives, the CPS was aware of Indonesia’s limited implementation capacity and the high transaction costs of project investments, and their limited impact on targeted beneficiaries. The need to improve the social conditions of population in Indonesia was demonstrated by continued concerns over food security, levels of under-5 stunting, and maternal mortality ratios. The CPS noted that widening infrastructure disparities meant poorer regions of the country did not participate in the growth process seen in other regions of the country. The CPS noted:

ADB will provide a combination of policy support, rural irrigation and water supply infrastructure investment, and support for development of value-chains and diversification into high value-chains agricultural commodities. (para. 48)

18. Figure 1 shows the long-term trend in total rice production. The steady decline in growth rates of total production (green), yield (blue), and area (red) is also shown. Over the 5 decades beginning in the 1960s, the growth rate of output steadily declined from 5.4% to 2.2%, the growth rate of area under cultivation decreased from 1.9% to 1.0%, and the yield shrank from 3.4% to 1.1%. It has only been during the most recent decade that some improvement in the yield growth can be seen in the figure and this is primarily because there was near zero growth in yield in the 1990s. The growth in area under paddy cultivation continues to decline steadily.

Figure 1. Rice Production in Indonesia: Total Production, Yield and Area (annual growth rate, %)

Note: green = total production, blue = yield, and red = area.

1. Portfolio Analysis

19. The portfolio analysis in this section relates to ADB’s ANR operations in Indonesia. It includes all operations that were approved during the country assistance program evaluation (CAPE) period (2005–2018): 11 operations were supported by loans and grants, including four loans that are classified under the transport and WUS sectors but were assessed under ANR as well due to the multisector nature of these projects. It excludes technical assistance projects and two Japan Fund for Poverty Reduction

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(JFPR) grant projects. These operations primarily fall into three broad groups: (i) five relate to poverty reduction, income generation, rural infrastructure, and community-driven development (CDD) projects; (ii) two relate to coastal, fisheries, and marine resources; and (iii) three relate to floods, irrigation, and IWRM. There was also one social forestry project (Table 1).

Table 1: Agriculture and Natural Resources Portfolio, 2005–2018

<table>
<thead>
<tr>
<th>Type of ANR project</th>
<th>Number of Projects</th>
<th>Performance Assessed</th>
<th>To be Assessed</th>
<th>Successful Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDD</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Fisheries and Marine</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Integrated Water Resource Management</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Social Forestry</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>11</td>
<td>8</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

ANR = agriculture and natural resources, CDD = community-driven development.

* Three ongoing projects (Loans 3440 and 3529; and grant 501) are at an early stage of implementation and are not ready for evaluation. This table includes loans originally classified under the transport and WUS sectors but which were reclassified for portfolio analysis.


2. Poverty Reduction, Income Generation, Rural Infrastructure, and Community-Driven Development

The five CDD projects were approved between 2005 and 2011 and were fully implemented during 2005–2018. These have been self-evaluated by the Regional Department and the assessments have been validated by the Independent Evaluation Department (IED)—Table 2. The total amount of funding for these five projects was $348.9 million of which $218.3 million (62.5%) was from OCR and $130.6 million (37.4%) from ADF.

Table 2: Rural Infrastructure, Livelihood, and Income Projects

<table>
<thead>
<tr>
<th>Project</th>
<th>Period of Implementation</th>
<th>Regional Department Self-Evaluation (PCR)</th>
<th>IED Evaluation (PVR)</th>
<th>ANR sector assessment/comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loan 2163</td>
<td>2005–2013</td>
<td>Less than successful</td>
<td>Less than successful</td>
<td>Less than successful</td>
</tr>
<tr>
<td>Loan 2221</td>
<td>2005–2009</td>
<td>Successful</td>
<td>Successful</td>
<td>Successful</td>
</tr>
<tr>
<td>Loan 2449</td>
<td>2008–2011</td>
<td>Successful</td>
<td>Successful</td>
<td>Successful</td>
</tr>
<tr>
<td>Loan 2575</td>
<td>2009–2014</td>
<td>Successful</td>
<td>Successful</td>
<td>Successful</td>
</tr>
<tr>
<td>Loan 2768</td>
<td>2011–2016</td>
<td>Successful</td>
<td>Successful</td>
<td>Successful</td>
</tr>
</tbody>
</table>

ANR = agriculture and natural resources, IED = Independent Evaluation Department, PCR = project completion report, PVR = project completion report validation report.

Note: Reports and recommendations of the President to the Board of Directors on proposed loans to Indonesia on community water services and health, rural infrastructure projects, and three loans for the rural infrastructure support to the PNPM Mandiri Project, respectively. With the exception of Loan 2163, the other loans were originally classified under the transport and WUS sectors.


21. These projects highlight the role of ANR in terms of providing essential relief, supporting livelihoods, and constructing rural infrastructure. These projects helped to improve habitats and neighborhoods by providing transport links, water and sanitation, education, and health services. They also introduced hygienic practices, and emphasized gender equity, attempting to encourage behavioral changes among the target groups.

The four loans reclassified but included in this sector assessment are: Rural Infrastructure Support Project, Rural Infrastructure Support to the PNPM Mandiri Project, Rural Infrastructure Support to the PNPM Mandiri Project II under the transport sector; and Urban Sanitation and Rural Infrastructure Support to the PNPM Mandiri Project under WUS sector.

The review also examined the earlier Indonesian projects in these subsectors to have a comprehensive view of progress in operations. These addition projects included two CDD projects, two fisheries and marine products, one irrigation project, and one agriculture project. Details of the additional projects are given separately in Appendix 4 but the analysis in the main text relates only to the 11 projects identified in Table 1.
22. These projects provided rural inhabitants with opportunities to think about and plan their own facilities. They allowed them to build these facilities with their own technology, resources, and expertise at their disposal. They made people living in rural areas aware of their environment and ecology. The government supported these activities and created opportunities for ADB to be engaged in inclusive growth. The government continued to carry out some of the project activities even after the projects had closed. A number of local initiatives and innovations were introduced in these villages (e.g., a phone-based hotline for feedback). Such rural reconstruction activities eventually converged under the government’s national program (PNPM Mandiri) and many ADB projects contributed to this program.

23. The PCRs assessed four of these five projects successful. Validation by IED confirmed these assessments. Only the CDD project was assessed less than successful. The CAPE assessment agrees with these ratings.

24. Assessment of CDD projects. Immediately following the 1997 Asian financial crisis, ADB’s ANR operations in Indonesia were prioritized to help the rural poor and people living in remote regions to recover from economic distress. The 1997 financial crisis had pushed millions back into poverty. Hence, a series of ADB interventions from the late 1990s, along with government initiatives and those by other development partners, sought to restore incomes, strengthen links with product and factor markets through better transport networks, and construct community assets using local materials that could be maintained by the communities.

25. The CDD model was especially focused on promoting participation by women. It sought to build rural assets economically using local expertise. These projects sought to support the government to:

   (i) achieve the MDG targets and improve the health status and quality of life of rural communities by providing better access to safe drinking water and sanitation facilities (Loan 2163);
   (ii) improve the welfare of rural communities, by improving access to basic rural infrastructure for the poor and near-poor in rural areas (Loan 2221);
   (iii) improve the socioeconomic conditions of rural communities in project areas by giving the poor and near-poor better access to basic rural infrastructure (Loan 2449);
   (iv) contribute to poverty reduction in rural areas by providing improved infrastructure (Loan 2575); and
   (v) contribute to poverty reduction in rural areas through provision of (a) better access to basic infrastructure and services, and (b) improved sanitation facilities for the urban poor, particularly those living in slums (Loan 2768).

26. The focal operational areas of CDD projects were consistent with the national development plans and ADB’s CPSs. Project outputs included skills development and training, credit programs, integrated livelihood and enterprise development; community-based water and sanitation services, sanitation and hygiene behavior, capacity building (Loan 2163); water and sanitation, improvements to rural roads, poverty reduction (Loan 2221); community mobilization and rural infrastructure (Loan 2449); poverty reduction and local governance improvement (Loan 2575); and continued rural infrastructure support (Loan 2768). Civil society organizations and volunteers played an important role in the implementation of these projects.

27. Some projects, e.g., Loans 2221, 2449, 2575, and 2768, directly supported the national program on poverty reduction and community development (PNPM Mandiri). Instead of designing each project uniquely as a full-fledged stand-alone investment projects, these projects supported slices of the national program by financing them through short-term projects for 2–3 years. This had implications for showcasing achievements of individual projects.

28. Although project completion reports (PCRs) and project completion report validation reports (PVRs) by IED assessed four of the five projects successful, the performance of these projects was constrained by factors inherent in the broader structural changes taking place in the country in terms of
decentralization and devolution of funds, as well by project design limitations. These limitations included the limited amounts of the allocations and their geographical distribution. Details of each project are in Appendix 1. There has been no ADB support in Indonesia since 2011 when the last of the projects (Loan 2768) was approved. Notably, there has also been no CDD-type investment during CPS, 2016–2019. In this sense, the performance of the CDD type projects largely belongs to the early years of the 2005–2018 CAPE period.

29. **Limited financial support.** CDD projects had only limited funding. The total approved amount of these projects during the CAPE period was $464.8 million. ADB's funding was $348.9 million, of which $218.3 million was sourced from OCR (62.6%) and the remainder from the ADF. This was too small an amount to have a notable impact, bearing in mind the implementation period of 13 years, the size of the country, its demographics, poverty levels, and infrastructure deficits in rural areas.

30. Further, a number of the projects during the CAPE period were associated closely with the national PNPM Mandiri program and these were designed as only 2- or 3-year interventions. This was not enough time to deliver CDD-type supports in remote rural regions of the country. These projects largely ended up focusing on rural infrastructure. Social transformations take a long time and it is unrealistic to expect to see lasting changes after such a short implementation period, especially when the following interventions are implemented in different regions, and by different agencies.

31. **Ongoing structural changes disrupted smooth implementation.** In the wake of the 1997 financial crisis, there were significant changes in Indonesia especially related to the decentralization of development administration. This adversely affected project implementation as the devolution of fiscal resources took time and the administrative capacity of public agencies was fractured. A number of decrees were issued, some of which reversed or revising previous arrangements. These changes required administrators at different levels to align themselves in the new setting. Counterpart funding problems arose frequently and slowed down project implementation.

32. Coordination with overlapping administration and oversight agencies became more difficult and increased the transaction costs of implementing projects. Initial project investments were spread thinly to begin with across a number of provinces and districts. Close and regular supervision of project areas was difficult. Moreover, while the focus of implementation turned to the lower levels, implementation capacity was stranded at national and provincial levels. These changes were fundamental and had far reaching implications. The decentralization process, especially fiscal transfers to the lower levels, is still unfolding, although the system is improving rapidly.

33. The government carried out implementation as best as it could, sometimes even continuing to implement projects beyond their closing dates. It also financed a number of consultancies with its own resources. The potential benefits of these projects were constrained by these challenges.

### 3. Fisheries and Marine Resources Projects

34. Given Indonesia’s landscape and the surrounding sea, fisheries, aquaculture, and marine resources are a valuable part of its economy. The welfare of fishermen, fish farmers, and fishing communities depends on the performance of this subsector. The Food and Agriculture Organization (FAO) noted that: “Fish and seafood are the leading source of animal protein for Indonesians (about 54% of their total animal protein intake).”\(^{19}\) The government transferred management responsibility for marine resources to provincial and district levels as part of the overall decentralization program. ADB supported the government’s move to attach higher priority to this subsector and to manage its fisheries and marine resources more efficiently. ADB supported two projects during the CAPE period (Table 3).

Table 3: Indonesia: Fisheries, Marine, and Coastal Resources Projects

<table>
<thead>
<tr>
<th>Project</th>
<th>Period of Implementation</th>
<th>Regional Department Self-evaluation (PCR)</th>
<th>IED evaluation (PVR)</th>
<th>ANR sector assessment/comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>L2285</td>
<td>2006–2013</td>
<td>Highly successful</td>
<td>Successful</td>
<td>Successful (on margin)</td>
</tr>
<tr>
<td>L3094</td>
<td>2013 (ongoing)</td>
<td>Not yet available</td>
<td>Not applicable</td>
<td>Less than successful</td>
</tr>
</tbody>
</table>

ANR = agriculture and natural resources, IED = Independent Evaluation Department, PCR = project completion report, PVR = project completion report validation report.

Note: Reports and recommendations of the President to the Board of Directors on proposed loans to Indonesia on aquaculture development for food security and poverty reduction, and coral reef rehabilitation and management program—Coral Triangle Initiative Project, respectively.

35. The main objectives of the fisheries projects were to:

(i) increase production of fish and other aquatic products, and improve income, nutrition, and employment status of poor fish farmers and coastal communities (Loan 2285); and

(ii) enable coastal communities, and the institutions that support them, to manage coral reef resources, associated ecosystems, and biodiversity in a sustainable manner for increasing the economic and social welfare of coastal communities (L3094)

36. Marine and coastal management projects focused on fisheries, aquaculture, and reef management. To the extent that these projects were focused on poor fishing communities located in remote unconnected coastal regions, the targeted efforts were similar to ADB’s efforts described above under poverty reduction and rural infrastructure. As noted, two projects were undertaken in this group between 2005 and 2018 but the loan for the second project was cancelled. The total cost of the remaining project was $44.5 million. This was financed by ADB in the amount of $33.3 million sourced from ADF.

37. Fisheries projects are important for poor coastal fishing communities as well as for Indonesia’s export markets of marine products. These projects increased food security and promoted nutrition while reducing pressure on coastal and marine resources. Under an earlier ADB-supported project\(^\text{20}\), Indonesia had established integrated coastal zonal planning and management which was an important achievement.

38. Assessment of fisheries projects. These projects were also adversely affected by the process of decentralization, and its associated structural problems. Projects faced a shortage of counterpart funds, and synchronizing funds at the district level was difficult. As decentralization and fiscal devolutions were still unfolding, the local agencies did not have a clear understanding of their rights and responsibilities to plan, monitor, and oversee the operations and maintenance (O&M) of subprojects. Project scope was reduced during implementation. During implementation of Loan 2285, the decree entitling districts to grant funds for the fisheries was changed which disrupted the implementation for some time.

39. The two JFPR projects illustrated similar problems. They experienced a series of implementation issues which delayed the start of these projects by about 3 years. Given that these were emergency assistance projects, during the delay a lot changed on the ground. Other development partners had built the needed rehabilitation facilities. The projects had to be re-oriented and underwent a major change in scope before implementation could begin. Even thereafter, problems with the flow of funds persisted. This impeded smooth implementation of the projects, and its scope had to be truncated.

40. The PCR assessed the Loan 2285 project as successful. IED also assessed it as successful in the PVR. The performance of the second project (Loan 3094) was, however, not satisfactory, and the project was truncated and reduced to grant financing only. As mentioned in the case of the CDD-type projects above, ADB is not pursuing fisheries projects anymore. The last loan in this group was approved in 2013. No further loans have been extended since then, ostensibly due to government’s borrowing policy. This

reduced level of support is disappointing given the importance of the marine and coastal management in Indonesia with its vast spread and the country’s archipelago character. Fisheries and marine product projects are particularly helpful for the poor fishing communities. They improve incomes and the nutrition of the targeted population beside helping in the export of fresh marine products to markets with strong demand, e.g., Japan. Fortunately, the government is committed to marine resources and it is expected that they will be prioritized in the country’s next medium-term development plan.


41. Improving management of water resources is one of the most important steps in the development of ANR sector in Indonesia. It is not only required for improving agricultural productivity, but also for mitigating the spill-over effects of natural disasters such as flooding, forest fires, droughts, and earth quakes. Efficiency in utilizing water resources is vital for efforts to mitigate environmental and climate change. Improved water management is also related to the participation of, and mutual interdependence among, communities. ADB has been involved in IWRM for a long time, and at present major initiatives are underway in this subsector Table 4).

<table>
<thead>
<tr>
<th>Project</th>
<th>Period of Implementation</th>
<th>Regional Department Self-Evaluation (PCR)</th>
<th>IED Evaluation (PVR)</th>
<th>ANR Sector Assessment or Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>L2500 Program</td>
<td>2008–2016</td>
<td>Unsuccessful</td>
<td>Not applicable</td>
<td>Unsuccessful</td>
</tr>
<tr>
<td>L2501 Tranche 1</td>
<td>2008–2016</td>
<td>Less than successful</td>
<td>Not applicable</td>
<td>Less than successful</td>
</tr>
<tr>
<td>L3440</td>
<td>2016-ongoing</td>
<td>Ongoing, not applicable</td>
<td>Not applicable</td>
<td>Too early for evaluation</td>
</tr>
<tr>
<td>L3529</td>
<td>2017-ongoing</td>
<td>Ongoing, not applicable</td>
<td>Not applicable</td>
<td>Too early for evaluation</td>
</tr>
</tbody>
</table>

ANR = agriculture and natural resources, IED = Independent Evaluation Department, PCR = project completion report, PVR = project completion report validation report.

Note: Reports and Recommendations of the President to the Board of Directors on proposed loans to Indonesia on the multitranche financing facility for the Citarum Water Resource Management Program, river basins sector project, and irrigation program, respectively.

42. These projects sought to:

(i) support the implementation of IWRM in the Citarum River Basin (multitranche financing facility [MFF] Loan 2500, and the related tranche 1, Loan 2501);
(ii) support the government and river-based communities to improve management and mitigation of flood risks by financing subprojects in the Cidanau–Ciujung–Cidurian (Banten province) and Ambon–Seram (Maluku province) (Loan 3440); and
(iii) support implementation of the government’s irrigation improvement program, 2015–2025 which sought to advance the overarching agenda of food security and rural poverty reduction through increased and improved water delivery—the results-based lending (RBL) program financed a time period of the government’s irrigation improvement program in 74 districts (Loan 3529).

43. Brief profiles of these three projects can be found in Appendix 3. In Indonesia, IWRM is an important sector for infrastructure investment. However, investments so far have been limited and major achievements have yet to made. Potentially, this is a sector which cuts across large areas of Indonesia

21 Japan has been a major bilateral donor to the irrigation sector. More than 50 loan projects for ¥300 billion (approximately $2.7 billion) have provided irrigation to about 370,000 hectares (5.2% of the irrigated area as of 2014). JICA. 2018. *Indonesia’s Development and Japan Cooperation: Building the Future Based on Trust*. Tokyo.
22 The International Fund for Agricultural Development (IFAD) is providing parallel financing to the Ministry of Agriculture for improved delivery of agricultural services to maximize the benefits of irrigation improvements.
and is amenable to large-scale application of new technologies and innovations, as is being attempted by the RBL project (Integrated Participatory Development and Management of Irrigation Program).  

44. The closed MFF (Loan 2500) was assessed unsuccessful by both the PCR and the PVR. The related tranche 1 was assessed less than successful by both. Implementation of the MFF was delayed due to the lengthy procurement process for several consulting services and civil works packages, which resulted from a limited understanding of ADB’s procedures for the recruitment of consultants and the procurement of works. The delays, combined with poor design, led to problems related to the legal basis of resettlement-compensation. The PCR noted that the MFF was closed on account of “high transaction cost and limited scope of works” for subsequent tranches. There are many lessons related to the MFF that need to be kept in view and these are noted both in the Compliance Review Panel report and the PCR. The project had a long preparatory period (2004–2008) before it was approved, and then ran into a number of problems including delays in the recruitment of consultants and issues related to resettlement compensation. The MFF was eventually closed prematurely.

45. The other two projects were approved more recently (2016 and 2017) and are in the early stage of implementation. While these projects have been described here, it would be premature to comment on their likely performance.

5. Community-Focused Investments to Address Deforestation and Forest Degradation Project

46. One grant-financed project on community-focused investments to address deforestation and forest degradation was approved in 2016. The project was funded by the Climate Investment Fund in the amount of $17.0 million. The project sought to improve sustainable management of forests by enhancing capacity to address the problem of deforestation and forest degradation. The Directorate General of Social Forestry and Environmental Partnerships of the Ministry of Environment and Forestry (MOEF) was designated as the executing agency of the project. The project was focused on the province of West Kalimantan and pilot activities were to be in Sintang and Kapuas Hulu. This province has the highest poverty rate in Kalimantan. Further, the selected areas for the pilot had the most potential for a reduction in greenhouse gas emissions. Project documents identified the key drivers of deforestation and forest degradation in the province as: (i) commercial logging, (ii) forest conversion to agriculture, (iii) mining (primarily coal and gold), and (iv) uncontrolled fires.

47. The project was designed with other donors, which took some time. Mobilization took place only in September 2018 and the project began in February 2019. The project has been delayed by difficulties recruiting consultants, nearly half of whom were replaced during engagement, and by changes in procurement packages. A reorganization of forest management units led to changes in the targeted villages (the list of targeted villages was changed three times before approval, and once thereafter). Baseline surveys in the new villages could not be expedited because of pending long-term forest management plans. Project financing and staffing issues have hampered rapid progress.

48. Technically the project is supervised by MOEF but it is directly under management of the provincial administration. This requires close coordination for smooth functioning. All these issues are affecting progress. During independent evaluation missions, the team of consultants suggested that project administration be shifted from ADB headquarters to the Indonesia resident mission to speed up
implementation. The suggestion is under consideration. It would be premature to assess the performance of the project.

6. Technical Assistance Projects

49. During the CAPE period, a number of TA projects were provided to the ANR sector in Indonesia, especially in support of CDD projects and for the preparation of IWRM operations. The TA projects included project preparatory, policy advisory, capacity building, and policy reforms. The TA projects were supported by ADB’s own resources as well as by development partners, especially the Japan Special Fund.

50. A review of the TA completion reports indicates the extensive range of activities undertaken and the complexity of issues the TA projects were designed to deliver. Generally, the aspirations and objectives of TA projects were so high that actual performance fell short and the outputs could not be delivered and utilized satisfactorily. The consultants’ performance was not always the main issue; quite often the design of TA project was unrealistic and staff reviewing the TA performance provided candid and realistic feedback. Specific problems associated with some TA projects are illustrated below.

- Terms of reference were not detailed enough; project site selection was vague; selected sites had no ongoing ADB project; documentation (especially maps) was of deficient quality; resources were thinly spread; there were too few opportunities for stakeholder participation; the implementation period was too short; the website that was created was not functional, and the TA had overly idealistic goals (TA 4687);
- Frequent requests by the government to change the consultants or the scope of their work; consultants could not implement pilot; consulting firm’s performance was poor; and TA formulation was ambitious (TA 7016);
- Limited analysis; recommended approaches were not feasible; gap between national and the lower levels of administration could not be addressed (TA 7768);
- Short of expectations; fell short in the process of addressing concerns; and no specific reporting on capacity building objective (TA 7776); and
- Unable to reach agreement to operationalize recommendations, the capacity development strategy was not endorsed as originally planned; involvement of too many agencies restrained achievement of targeted objectives (TA 7849).

51. These issues raise serious concerns about TA designs and the utilization of grant funds. There is a need for ADB to be more circumspect in its expectations from its TA projects. TA projects need to be designed more realistically and monitored more closely.

D. Evaluation of ADB Assistance

1. Overview of Performance

52. This section assesses the ANR portfolio according to IED’s evaluation criteria. Assessment of the core section is presented in quantitative terms. Table 5 covers projects that were approved during 2005–2018. Scores and ratings for individual criteria have been aggregated by using weights in accordance with the magnitude of ADB’s capital investments. The overall score uses equal weights for each criterion.
Table 5. Indonesia: Score and Rating of ANR Projects

<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
<th>Weight</th>
<th>Assessment</th>
<th>Rating*</th>
<th>Score**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevance</td>
<td>20%</td>
<td>Relevant</td>
<td>2.0</td>
<td>0.4</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>20%</td>
<td>Less than effective</td>
<td>1.0</td>
<td>0.2</td>
</tr>
<tr>
<td>Efficiency</td>
<td>20%</td>
<td>Less than efficient</td>
<td>1.0</td>
<td>0.2</td>
</tr>
<tr>
<td>Sustainability</td>
<td>20%</td>
<td>Less than likely sustainable</td>
<td>1.0</td>
<td>0.2</td>
</tr>
<tr>
<td>Development Impact</td>
<td>20%</td>
<td>Less than satisfactory</td>
<td>1.0</td>
<td>0.2</td>
</tr>
<tr>
<td>Overall</td>
<td>100%</td>
<td>Less than successful</td>
<td></td>
<td>1.2</td>
</tr>
</tbody>
</table>

* The ratings are from 0 to 3.
** The score is the product of the weight and rating; the numbers are the sum of scores for the five criteria; the overall rating is highly successful if the sum of scores >= 2.5; successful if < 2.5 and >=1.6; less than successful if <1.6 and >=0.8; and unsuccessful if < 0.8.

2. Relevance

53. The CPS sector objectives were appropriate and responded well to the key challenges facing the Indonesian economy and ADB’s corporate objectives. The CPS recognized the role of ANR in the archipelago, and the continued dependence of Indonesia’s large population on these resources. Periodic development plans of the government also consistently prioritized the sector. Investments in ANR were deemed important for poverty reduction, employment generation, assisting in gender and development (GAD), and rendering economic development environmentally more sustainable. As ADB had only limited lending resources for project lending in ANR, it was important that ADB aligned its investments with the government’s priorities to have the greatest impact. This came into focus more toward the end of the CAPE period: CPS, 2016–2019 highlighted the role of the ANR sector and linked its benefits not only with the national economy but with ASEAN.

54. The government priorities in the sector also reveal a clear pattern. Just after 1997, the emphasis was on mitigating the negative effects of the financial crisis. Millions of Indonesians, especially those living close to the poverty line, and those living in remote rural or coastal areas had been pushed back into poverty. Hence, there was a great deal of emphasis on poverty reduction and CDD with the active involvement of civil society. With the restoration of economic development, the emphasis gradually shifted to the construction of rural infrastructure, especially transport links in the rural areas. The growing emphasis on environmentally sustainable economic growth and climate change underscored the need for improved coastal management and marine resources, which would also serve to reduce poverty among fishers, fish farmers, and fishing communities. With time, especially as the Indonesian economy has been classified as middle-income, the planning horizon has been extended and longer-term large-scale investment programs are now being supported by the CPS to guard the economy from being caught in the middle-income trap. The development plans of the government and ADB’s country strategy papers both reflect this transition. There is alignment between the CPSs and government’s development plan priorities.

55. The distribution of projects within the ANR sector attempted to cover many dimensions. The ADB program included projects addressing food security, poverty reduction, rural infrastructure, CDD, coastal management and fisheries, and IWRM. It also covered a huge area, from Papua in the east to northern Sumatra in the west. Because in each case investments were made in new locations, they were supported by a number of capacity building and TA measures, both before and during the implementation period. Likewise, the mix of financial sources—concessional or interest-bearing, as well as their modality, varied across different projects.

56. ADB programs responded to the changing priorities of the country and the emphasis in each CPS. The proposed programs were in line with the country’s need for inclusive economic and environmentally sustainable growth and were conducive to regional economic integration across ASEAN.

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26 For a review of Indonesia’s agriculture development in recent years, see Effendi Andoko, Aurellia Candida, and Edyla Zmudczynska. n.d. A Review of Indonesia’s Agriculture Development in Recent Years 2014–2018. [http://ap.fftc.agnet.org/]
Good governance, GAD, capacity building and promotion of the private sector were pursued. However, project-related monitoring and evaluation, establishing the baselines of projects, and linking them with the CPS results framework was not systematic and remained ad hoc, partly because of the limited technical capacity in subnational offices as well as the limited support available from ADB staff.

57. In terms of design, ANR projects displayed certain limitations. While repeat projects such as poverty reduction, rural infrastructure, and IWRM pursued their objectives through a series of investments, others, such as marine products or social forestry, were largely one-off. More importantly, during the CAPE period there was no single project directly focused on agricultural productivity. Some investments were too small in relation to the magnitude of the problem, size of the country, and its population. Given the limited resources at the disposal of these projects, they could not possibly deliver what they were designed for. Low investment levels weakened the thrust of ANR interventions even while the projects were properly targeted and were consistent with the CPS. Overall, the ANR portfolio is assessed relevant.

3. Effectiveness

58. Some ANR projects achieved less than full outputs and outcomes. Despite the fact that the CPS delineated the right focal areas for investments in Indonesia, the achievement of outputs and outcomes was mixed. Outcomes were often only partially achieved. These shortcomings in outputs and outcomes were due to a range of factors. Projects before the CAPE period were innovative and promising in the sense that they succeeded in introducing new practices and contributed to the achievement of project objectives, e.g., in the earlier agriculture projects, or in the series of projects supporting PNPM Mandiri (Loan 1765), or in the marine coastal resource management projects. These projects introduced innovative development models in rural regions. Moreover, ANR interventions during the CAPE period did not build on this legacy. Some of the earlier practices continue to be relevant even now, especially in remote and lagging regions, but they are no longer being supported by ADB. These projects were a small fraction of the total ANR portfolio under assessment. Larger investments, such as the Integrated Citarum Water Resources Management Investment Program, were cancelled.

59. Some projects did not fully use the resources made available to them. Some projects did not utilize the full financing and TA made available under the project (e.g., Loans 2163, 2500, and 3094). In these projects, efforts were abandoned, and loan accounts closed before full outputs or outcomes could be achieved. Many of the preparatory efforts and financial resources were wasted when projects were abandoned midway before they had achieved their outputs and outcomes. Some recent projects (approved in and after 2016) which accounted for a large share of the current portfolio are in the early phase of implementation and it would be premature to make any assessment about their effectiveness.

60. The recent trend of project performance in the CAPE period is not encouraging. There has been no new CDD project since 2011. Similarly, the last fisheries project was approved in 2013 and was subsequently cancelled. A major water resource management project (MFF 2500) was cancelled after the completion of tranche 1. The underlying structural factors do not seem to support project investments. In comparison to earlier simple poverty reduction and rural infrastructure development projects, recent ANR projects were more ambitious and complex in design. They required modern technology (e.g., using information and communication technology and geo-spatial mapping) and better implementation capacity than is available in the sector. The expectation of achieving better outcomes in relation to investments generally remains low. In some cases, project outcome and output achievements could not

27 As noted in CPS, 2016–2019, the objectives of the National Medium-Term Development Plan were to be achieved through a development strategy focused on (i) food and energy security, maritime and marine development, tourism, and industry development; (ii) human development, through education, health, and housing; and (iii) regional equity.

28 In some cases, the targeted number of households or villages or the self-help groups was not reached. In some cases it was uncertain whether the right target groups (e.g., the poor) were included (Loans 2163, 2221, and 2768). In others, the quality of construction was not up to standard or fewer units had been constructed than planned (Loan 2221 and 2440). These discrepancies were sometimes due to the absence of proper baseline data. The shortfall in capacity building activities (Loan 2163), or inappropriate TA outputs (Loan1765) were other instances of partial outputs or outcomes.
be documented properly due to inconsistencies across project outputs and outcome indicators in the design and monitoring framework and the CPSs. The achievement of non-physical outcomes (e.g., the policy making capacity of government staff, private sector investments in ANR, or enhanced bank credit) was hindered by a number of system-wide structural factors and lack of institutional development.

61. **There was a lack of implementation capability at the lower levels.** Certain GAD-related activities benefited the target groups, and some safeguard issues have been addressed in accordance with ADB policies. However, the significant amount of TA and consulting services provided under every project have not been catalytic in ensuring better achievement of outputs and outcomes. Some earlier projects were instrumental in introducing new practices, e.g., the IWRM projects (Loan 2064), projects supporting research and development in the agriculture sector (Loan 1909), or fisheries (Loan 1770). Otherwise, a systematic lack of implementation capability has persisted across projects. The ANR portfolio is assessed less than effective.

4. **Efficiency**

62. **CPS, 2006–2009 noted that agriculture sector was the “least efficient” sector.** The ANR sector performance was earlier assessed by the CPSFR as “least efficient” sector. IED also expressed a similar concern about the limited achievement of outputs and outcomes in ANR in its validation of the latest CPSFR.

63. **Investments in CDD generally and some fisheries projects have been beneficial in terms of yielding increasing incomes.** ANR projects were relatively small investments with large numbers of beneficiaries. They have been instrumental in mobilizing community resources in the form of in-kind contributions and have also generated employment in rural areas. Reconstruction of the rural transport networks improved product and factor market links resulting in enhanced productivity. These broad cost and benefit relations are corroborated by the estimates of economic internal rates of return for individual ANR projects. However, lack of baseline data and methodological issues continue to suggest weaknesses in a number of economic re-evaluations. It can be argued that a larger investment in ANR by ADB would have spread the benefits (food security, employment, inclusive growth, and earnings) more widely.

64. **There were a number of implementation and process efficiency concerns that need to be addressed in ANR projects.** The Integrated Citarum Water Resources Management Investment Program was cancelled as a result of such issues. Smaller projects spread across remotely located islands present a tremendous challenge. Small and fragmented investments increase coordination costs and reduce incentives for beneficiaries to exercise ownership, especially in a context of structural changes in relation to decentralization and devolution of inter-government fiscal arrangements. A number of ANR projects reported that the implementation of the project was affected by counterpart funding difficulties. Such interruptions weakened absorption capacity as can be seen in the unutilized funds under some projects. In some cases, the government had to continue with project implementation even after project closing, using its own resources.

65. **The limited technical capacity in the implementation agencies was a major constraint on the implementation of ANR projects.** Project implementation had to be supported by a large number of consultants, whether financed by the loan or through TA grants. Given the multilayered administrative arrangements, deployment of consultants was repeated at national, provincial, and district levels, including engaging some civil society staff at subdistrict and village levels. Apart from being inefficient, such arrangements led to higher coordination costs and weakened absorption of project expertise.

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31 In cases where economic internal rates of returns were recomputed upon completion, estimates tended to vary between 15% and 68%. These were usually higher than the estimates at appraisal. However, estimates are often not comparable because of differences in coverage of scope during re-evaluation, and methodological differences. The methodology at reevaluation did not follow that was used during appraisal. A number of projects did not use economic internal rates of return while discussing efficiency, e.g., Loans 2163, and 2249.
requiring another round of consultants for the succeeding project. Opportunities to build expertise in the sector have been missed, and there is little institutional memory in the system. This is particularly true for projects with a short duration or one-off projects. The overall ANR portfolio is assessed less than efficient.

5. Sustainability

62. **The government is committed to ANR projects.** It has identified ANR investments that are consistent with its own medium-term development plans and displays rigorous standards in selecting and negotiating these projects with ADB. It lays considerable emphasis on new knowledge, information, innovation, and technology-led investment projects, and expects ADB to help in designing and supporting such projects. Despite Indonesia’s rapid economic growth, allocations for O&M are still a problem. These impediments are also related to weak capacity at provincial, district or lower levels in synchronizing financial flows, together with material inputs, on time.32 The problems are further aggravated by the lack of counterpart funding. However, the severity and incidence of these problems vary from province to province.

63. **A notable aspect of some ANR projects has been the participation of local beneficiaries along with nongovernment organizations (NGOs) in construction and maintenance of project assets.** This helps to get project assets produced economically as well to prolong the benefits of investments. Otherwise, spreading small amounts of funds too thinly is a source of potential risk. For example, some of the assets created under ANR projects were constructed to last for only 10 years with O&M, or for only 5 years without O&M. The use of loan funds for such short-lived investments is not very beneficial. Outcomes were also not sustainable when some of the critical resources were channeled through different levels or through different ministries. This has happened in case of nonlending assistance. If a project is carried out by one ministry but the related TA is given to another ministry, coordination problems between the two organizations can be expected. This is particularly true for safeguard and rehabilitation issues. The experience of the Integrated Citarum Water Resources Management Investment Program showed that resolving these issues can be costly and time consuming.33

64. **Limited ANR investments that try to reach out to too many remote communities and small habitats tend to be fragmented.** This results in disproportionately high coordination and transaction costs. Short CDD projects can hardly generate lasting impacts on the community or its infrastructure. Given Indonesia’s improved macroeconomic performance, the government is keen to spend its own resources but this seems unlikely to address the problem of unproductive investments. Striking an appropriate balance between long-term hardware, software, and short-cycle support is crucial for sustainable rural reconstruction. The overall ANR portfolio is assessed less than likely sustainable as the opportunity to build on earlier good practices was not taken advantage of during the CAPE period, especially in the last CPS period.

6. Development Impacts

65. **The development impact of the CDD projects that built rural infrastructure as well as the marine resources project was positive.** These investments enhanced food security, improved nutrition, and led to exports of fish and other marine products.34 However, because their size was limited and spread over an extensive area, the benefits were also limited and thinly spread. Gains from earlier participatory

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32 See the project evaluation reports of Loans 2163 and 2164: “... effective roles of both the local governments and communities are required to sustain the O&M of completed project facilities” in IED. 2014. *Indonesia: Community Water Services and Health Project*. Manila: ADB. See also. IED. 2105. *Indonesia: Rural Infrastructure Support to the PNPM Mandiri Project II*. Manila: ADB.
34 Marine fish, shrimp, and tuna are Indonesia’s leading exports. Combined marine and fish products are increasing at the rate of 9%–10% per annum. Exports are destined to the United States, Japan, and Europe (The David and Lucile Packard Foundation. *Indonesia Fisheries: 2015 Review*. A report prepared by California Environmental Associates [CEA]; [www.packard.org](http://www.packard.org).
irrigation projects have also been significant, and the new IWRM projects (Loans 3440 and 3529) are expected to have a major development impact upon completion. These projects have the potential to change agriculture production in Indonesia but ADB itself is not engaged in the agriculture sector; instead, it is collaborating with the International Fund for Agricultural Development (IFAD) and depending on its agriculture expertise.

66. One reason for the limited gains in the past has been that project investments constituted only a fraction of total ADB lending to Indonesia, and the absorption capacity of the project agencies has been impeded by changes in the country’s administrative system. Food security continues to be a concern even now, while agricultural productivity remains low (Figure 1). The impact of the ADB program on gender was generally positive and ANR investments enabled women to participate actively in planning infrastructure and managing natural resources. As the ANR sector largely comprises independent small farmers, investments in the sector primarily benefited the private sector and contributed to employment opportunities. The cancellation of the Citarum program has reduced ADB’s potential contribution to environmentally sustainable growth. The ANR portfolio is assessed to have had less than satisfactory development impact.

E. Other Evaluations

1. ADB Performance

67. ADB’s performance has been generally satisfactory in the ANR sector. ADB aligned its operations with the government’s medium-term development plans and established itself as a reliable partner in the country’s development. In the wake of the 1997 financial crisis, ADB extended full support and provided relief through poverty reduction and income generating CDD projects. ADB also supported fisheries, coral reefs, and marine resources and provided much needed relief to fishing communities. These helped in making economic development environmentally sustainable and more attentive to climate change. ADB persisted with these interventions until Indonesia’s economy moved into the middle-income category.

68. Since then, ADB has been trying to engage in more challenging, technology-driven innovative projects promoting irrigation infrastructure. It should have done more in agriculture other than irrigation to improve productivity and to address crucial food security issues. However, ADB decided to work with IFAD and leave the sector-specific investment to them. ADB also played an important role in facilitating implementation of decentralization and devolution of fiscal transfers to lower levels. It supported many of these operations with TA grants, but their implementation has not been uniformly effective. ADB has maintained close and functional relationships with development partners. The government appreciates ADB’s contribution over the decades. The Indonesia resident mission’s capacity needs to be expanded substantially for ADB to play a role in accordance with the size of the economy and Indonesia’s potential in the wider ASEAN region. ADB’s performance is assessed satisfactory.

2. Executing Agency, Implementing Agency, and Borrower Performance

69. Indonesia has performed well as a borrower and its executing agencies have discharged their obligations despite major structural changes to the system of administration. The government has been careful and rigorous in its agreements with ADB. It has been prudent and has been fully committed to bringing about structural changes in relation to decentralization and fiscal arrangements to transfer funds to local levels. Its relationship with ADB has been informed by its medium-term development plans. It has generally observed all covenants and conditionalities. Greater attention needs to be paid to GAD, marine resources, coastal management, and forestry. CPS, 2016–2019 observed, “the cost of doing business, especially at local levels, is very high, owing in large part to regulatory and administrative

35 The 2017 Article IV Consultation mission reports, “…challenges remain in the coordination between central and local governments” (IMF. 2018. 2017 Article IV Consultation—Staff Report. Washington, D.C.).
inefficiencies.”36 The country has serious capacity constraints at the lower levels, and synchronization problems have led to a shortage of counterpart funding. The forthcoming medium-term development plan is expected to launch a comprehensive nationwide human resource development effort. The borrower’s and executing agency’s performance is assessed satisfactory.

F. Conclusions

1. Key Findings

70. In the 1990s, ADB’s ANR operations in Indonesia were prioritized to help the country, especially its rural poor and people living in remote regions, to recover from economic distress and to rehabilitate normal functioning of day-to-day economic activities. A series of ADB interventions, along with efforts by the government and donors, were approved between 2005 and 2018 to restore incomes, strengthen links with product and factor markets through building transport networks, and construct community assets economically using local materials with maintenance carried out by the community itself. These projects provided opportunities for inhabitants to participate in planning, designing, and being innovative based on their needs and aspirations. The last such project was implemented during 2011–2016.

71. Over the same period, ADB implemented two projects which focused on fisheries, aquaculture, coral reefs, and marine resource management. These supported fishing communities and helped to increase their incomes while at the same time introducing sound environmental practices for sustainable utilization of natural resources. Like the CDD projects mentioned above, these projects also helped bring relief and support to vulnerable fishing communities, and to improve management of marine resources. While the first project did well, the second ran into implementation problems. Its scope was reduced and the loan was cancelled. It is being currently implemented on a grant basis.

72. Projects related to IWRM built on an earlier participatory irrigation system project of 2003. However, an MFF had to be closed after the first tranche. Two new projects were approved in 2016 and 2017, the last of which followed the new results-based lending (RBL) modality. An RBL project leans heavily on new technology and is knowledge-intensive. IWRM underpins the potential of agricultural development. There was no project directly addressing agriculture productivity during the CAPE period as ADB working closely with IFAD in this area, especially in relation to the RBL project.

73. Of the 11 projects in the ANR sector during the period, two recent IWRM projects (Loans 3440 and 3529) and one social forestry project (Grant 501) are not ready for assessment. Of the remaining eight, five (62.5%) have been assessed successful or higher in the PCR. IED also assessed these five projects to have been successful, with two of them successful on margin.

74. It seems that, during the CAPE period, ADB moved out of supporting poverty reduction, income generating rural reconstruction-type CDD projects, as none was approved during the recent CPS. Similarly, unless they are revived under the new national development plan, marine resources and coastal management initiatives seem to have petered out and are currently being supported through some small grants. ADB seems to be focusing primarily on IWRM and is currently implementing projects on flood management and an RBL on IWRM. Irrigation-related infrastructure is the main thrust area of current investments in ANR.

75. Outside the last two IWRM projects and a social forestry grant, all of which are too early to assess, the total amount of ADB financing was small ($799 million) for a large country with a significant population over more than 13 years. Of this, about 43% was sourced from the ADF, with the remainder

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from OCR. The pace of financial absorption in the sector has been slow, and there are many instances in which the limited available resources have not been utilized in full and the loans were cancelled.

76. The following are the main findings on the ANR sector in Indonesia during the CAPE period.

(i) The pursuit of project-related monitoring and evaluation, baseline data, links with the results framework were ad hoc and need to be more systematic.

(ii) Limited technical capacity in the implementing agencies affected operations, especially at the provincial and lower levels. ANR projects required greater field-based support.

(iii) Agriculture did not receive enough attention during the CAPE period, nor did social forestry. There was only one project in social forestry during the CAPE period.

(iv) Most ANR projects were small.

(v) Achievement of outputs and outcomes was partial and was not followed up during the last CPS.

(vi) ADB has not supported CDD projects since 2011 and fisheries and or marine resources projects since 2013.

(vii) A number of projects did not utilize the available funds in full.

(viii) Two IWRM projects and one social forestry project are ongoing, and it is too early to comment on them.

(ix) The ongoing IWRM projects are more ambitious, complex, and risky.

(x) Policy support, private sector involvement, and access to banking and credit markets has been limited under ANR projects.

(xi) Historically, the ANR sector has been a weak performer. CPSs have recognized and acknowledged this but no remedial measures have managed to resolve the problem.

(xii) A large number of TA projects have not been able to build capacity in the ANR sector.

(xiii) Economic analysis of projects suffers from a number of limitations and the current economic evaluation practices need to be improved.

(xiv) The dispersal of ADB projects across far-flung remote locations increases transaction costs and is inherently inefficient.

(xv) Arrangements for the devolution of funds to the lower levels remains a work in progress and was an impediment to the smooth implementation of projects.

(xvi) Deployment of consultant services and their duplication at multiple levels was inefficient and discouraged on-the-job learning on the part of the regular staff.

(xvii) Many of the assets constructed in rural areas will have a short life span of 5 to 10 years, which is not an economically efficient utilization of borrowed resources.

(xviii) The O&M allocation remains a problem linked with incomplete arrangements for financial devolution.

(xix) Having an implementation agency in one ministry and providing TA to another creates coordination issues and inhibits harmonious working.

(xx) Rural development focused substantially on transport infrastructure with many other aspects of rural development not receiving due attention.

(xxi) Overall ADB investment in the ANR sector has been on the low side, bearing in mind the size, population, and archipelagic character of the country.

(xxii) At present, the ANR sector in Indonesia is narrowly focused on IWRM.

2. Issues

77. Implementation capacity is a constraint in the ANR sector. This is accentuated by a multiplicity of agencies with overlapping functions and oversight across national, provincial, district, and lower levels. While Indonesia has adequate capacity at the national level, decentralization has required activities to be moved to the lower levels. This stranded capacity has slowed implementation and led to higher coordination costs in ANR projects which were scattered widely across the entire country. The flow of funds to the lower levels proved to be a constraint as fiscal arrangements underwent changes and adjustments over time. A possible solution could have been to design smaller stand-alone projects for
different subnational regions and for ADB to supervise these directly at the decentralized levels. Such projects would have been capable of responding better to the variations in natural resources and institutional capability across different regions.

78. **Dependence on consultancy services.** Implementing agencies were excessively dependent on consulting services. The consultants were deployed at multiple levels across all provinces and districts; consulting services were provided not only for getting tasks done, but often to assist in the oversight and supervision of the projects. Dependence on outsourced consulting services deprives regular officers and staff of opportunity of on-the-job learning. Little institutional knowledge or memory is created in the implementing agencies. Consequently, successive projects have to repeat provisions for consulting services. Designing stand-alone projects across different subnational regions, as mentioned above, would reduce the need for providing consulting services at multiple levels.

79. **Project design and ownership.** Generally, there does not seem to be strong ownership of the project designs, and many projects went through changes soon after approval, especially when there was a change in key officials. Ambitious and extensively spread out projects across dozens of districts could not be supervised thoroughly by staff. This led to delays and ad hoc changes which were not always consistent with the project outcomes. Coordination of non-lending activities and TA projects was ad hoc. Some PCRs assessed the TA attached to the projects *less than successful.*

**3. Lessons**

80. The following lessons can be drawn from the issues mentioned above.

(i) With CDD-type projects, Indonesia found an effective and useful model of rural development, including with regard to marine resources and coastal management. However, these projects were not implemented to scale. The government and its development partners should have seized the opportunity to upscale these efforts. Even now there is a severe infrastructure deficit in rural areas of the country, especially in the east and in Sumatra.

(ii) Fragmented and thinly spread investments across vast disjointed territories of varying capability do not yield the desired outcomes economically. A phased approach of rural development would have been more effective and would have yielded better results.

(iii) When a country is engaged in country-wide major restructuring such as decentralization, and legislation is being prepared to direct different levels on their new roles, designing and delivering donor-funded projects needs to be directed at those levels rather than duplicating conventional arrangements at multiple levels.

**4. Recommendations**

81. Design simple, stand-alone projects for smaller geographic slices to overcome capacity constraints. ADB needs to design stand-alone ANR investments in Indonesia that suit Indonesia’s distinct geographical areas and varying levels of economic development. This would enable the formulation of simpler projects that are easy to implement and supervise. A policy framework for such stand-alone projects could be managed at the national and provincial level, and policy reforms could be fashioned and implemented more effectively and convincingly.

82. Provide consulting services close to the project implementation level to avoid duplication along the vertical chain of provinces and districts.

83. Situate the project design firmly in the ANR policy framework agreed with the national and provincial governments to avoid repeated revisions to the design. The issues identified and the recommended suggestions are summarized in Table 6.
Table 6: Issues and Recommendations for the ANR Sector

<table>
<thead>
<tr>
<th>Issues</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation capacity at the lower levels of implementing agencies is a major constraint on implementing ANR projects.</td>
<td>Capacity constraints can be bypassed by designing simple, stand-alone projects for smaller geographic slices.</td>
</tr>
<tr>
<td>Excessive dependence on consulting services is evident in the repeated provisioning at multiple levels in a decentralized system.</td>
<td>ADB should provide consulting services close to the project implementation level to avoid duplication along the vertical chain.</td>
</tr>
<tr>
<td>There is an absence of strong project ownership especially when key officials are transferred; this results in frequent changes even in a recently designed project.</td>
<td>Project design should be firmly situated in the ANR policy framework agreed with the national and provincial governments to avoid repeated revisions.</td>
</tr>
</tbody>
</table>

ANR = agriculture and natural resources.
Source: Independent Evaluation Department.
POVERTY REDUCTION, INCOME GENERATION, AND COMMUNITY DEVELOPMENT PROJECTS

Community Water Services and Health Project (Loans 2163 and 2164) ¹

1. Approved in April 2005, the project sought to restore and improve access to water supply and sanitation facilities in 1,000 communities in four provinces: West Kalimantan, Central Kalimantan, Jambi, and Bengkulu. The total project cost of $92.4 million was financed by ordinary capital resources (OCR) and the Asian Development Fund (ADF) in the amounts of $34.1 million and $30.6 million, respectively. This was followed by another Asian Development Bank (ADB) grant (Grant 0003) for $16.5 million.² About 500 communities of Aceh and Nias that had been widely affected by the earthquake and tsunami were targeted by the project.³ The project supported the achievement of the Millennium Development Goals (MDGs) in Indonesia. The project steering committee was chaired by the Ministry of National Development Planning (BAPPENAS). Under the guidance of a central planning and management unit, the Directorate General of Disease Control and Environmental Health of the Ministry of Health was made the executing agency.

2. Outcome and outputs. The expected outcome of the project was sustained and improved access to safe drinking water and sanitation. The project sought to improve the hygiene behavior of low-income communities in rural and peri-urban areas. Integral to the sustainability of the project outcome was an effort to build the capacity of the local governments and communities in the context of the unfolding decentralization in Indonesia. The project outputs included: (i) capacity building (at the district and subdistrict levels), (ii) community empowerment, (iii) community-based water and sanitation facilities, and (iv) changed sanitation and hygiene behavior. The project pursued a community-driven participatory approach and the selection of project districts was in accordance with the criteria agreed by ADB and the provincial and national governments.

3. At the provincial level, coordination committees were established, chaired by the provincial regional development planning agencies, while a district-level project management unit was established in each participating district. A community implementation team, supported by community facilitators, was established in each participating community and was responsible for ensuring the full involvement of the community in all project-related activities.

4. Following the decentralization drive, Indonesia made fiscal devolution arrangements. Soon after the project was declared effective in 2006, a decree facilitating the channeling of loan proceeds to the participating districts was canceled by the government. The replacement arrangements were established only in 2008 (project completion report [PCR], paras. 7 and 8). This affected project design and disrupted its implementation.

5. Out of the total project cost of $92.4 million at appraisal, only $51 million was utilized (about 55%) by completion. The major deficit was in the civil work costs, reduced level of activities in capacity building, the sanitation and hygiene behavior component, and surveys. However, the project utilized most of the estimated consultant inputs provided at central levels, although only half of the planned domestic consultants working with regional support teams were utilized. The need for support at the community level was much higher than anticipated in the design at appraisal.

² Administered by ADB, these grants were financed by Can$4.5 million sourced from the Canadian International Development Agency (CIDA), $5.0 million from the Government of the Netherlands, and $7.5 million equivalent from the Department for International Development (UK).
³ ADB also financed another grant of $7.0 million (Grant 0002) out of its Earthquake and Tsunami Emergency Support Project (ETESP), with a total amount of $294.5 million.
6. At the output level, the PCR noted that only 878 villages of the targeted 1,000 were covered, and many capacity building activities were cancelled. Out of $14.7 million allocated for training (mostly at the local level), only $3.5 million was utilized. A substantial number of training programs meant to promote sanitation and hygiene behavior in the communities were not carried out. Some of these capacity building activities were carried out but not identified as such under the design and monitoring framework (DMF). However, the PCR noted significant achievements in engaging women in all stages of project implementation.

7. Poor coordination and the weak capacity of executing and implementing agencies limited the project’s achievements. This is illustrated by problems faced because of the statement of expenditures for reimbursement and the resulting backlog in the imprest account. An amount of $3.6 million could not be disbursed due to the lack of supporting documents. The project also faced delays in the provision of counterpart funds. Many district and provincial water and health working groups were no longer active after the project closing.

8. Although many field visits were undertaken in support of implementation, project supervision was difficult and time-consuming as activities were widely spread across four provinces. The grant component made some improvements to access to safe water, establishment of public toilets and improved understanding of sanitation and hygiene. However, these were not expected to be sustainable, especially in Nias. The project was assessed less than successful.

Rural Infrastructure Support Project (Loan 2221)\(^4\)

9. Approved in December 2005, the Rural Infrastructure Support Project for $60.8 million was financed by an ADF loan for $50.0 million.\(^5\) The project was completed and closed on time in August 2009. The project was designed to support an expansion of rural infrastructure for 1,800 villages with a high incidence of poverty. The project had two major components: (i) infrastructure rehabilitation and improvement, and (ii) implementation, monitoring and coordination support. Through the provision of water, sanitation, education and health services, the project sought not only to ameliorate poverty in the selected villages but also to contribute to the achievement of MDGs. Improvements in rural roads were expected to improve access to services and markets. The project pursued a community-driven development approach, and women were expected to benefit significantly from the project investments.

10. The Ministry of Public Works through its Directorate General of Human Settlements (DGHS) was designated the executing agency. The project was supported by consulting services (about 750-person months) and 5,000 person-months of facilitators at village level. Both these items were funded from government funds. In addition to the national coordination team, and the national steering committee, project implementation units were established at national, provincial, and district levels. Community implementation organizations were set up in villages.

11. These provided a valuable opportunity for communities to participate in planning and implementation of development activities and build their capabilities. Transport and bridges accounted for a large share of rural infrastructure (about 85%). Infrastructure in a number of villages in East Java (521), East Nusa Tenggara (581), South Sulawesi (445) and South-East Sulawesi (293) was upgraded. The project reportedly built infrastructure facilities economically because of the community-driven development (CDD) approach (the costs were said to be 40% lower than under other procurement options). However, the expected life of the infrastructure was estimated to be only 10 years with operation and maintenance (O&M) and only 5 years without O&M.

\(^4\) This project is also included under the transport sector, as it was reclassified under that sector for this CAPE.
12. This raises some concerns about the design of the project, although it was part of the larger program of the government and followed those norms. The short implementation duration also limited the gains that could have been derived from a full-length CDD approach. All physical works were completed 1 year ahead of schedule. Successful implementation of the project encouraged the government to develop and implement a National Program for Community Empowerment (PNPM Mandiri) which resulted in a series of ADB-supported rural infrastructure and community development project. The project was assessed successful.

Rural Infrastructure Support to the PNPM Mandiri (Project Loan 2449) 6

13. Approved in 2008, the Rural Infrastructure Support to the PNPM Mandiri7 Project for $62.5 million was supported by an ADF loan for $50.0 million.8 Like Loan 1765, the project continued support to the government’s PNPM Mandiri Project. It focused on poverty reduction in rural areas through the construction of rural infrastructure. Project components and outputs included: (i) community facilitation and mobilization, and (ii) rural infrastructure improvement. The Ministry of Public Works through the Directorate General of Human Settlements was the executing agency. The Community Implementation Organization (CIO) was the key agency through which the project was implemented, and the project’s duration was 2 years.

14. The short duration of the project may have contributed to the poor participation by women and the poor. Likewise, while the project’s performance in terms of infrastructure was satisfactory, it did not achieve government targets. Improvements in such long-term factors such as strengthening participation practices are unlikely to be achieved through a short project. Under the project, connecting rural habitats with the road network was the most sought-after activity. The PCR noted that more effort was needed to strengthen the voice of vulnerable groups, particularly women and the poor. More importantly, the project sidestepped the key impediments faced by many ANR projects in Indonesia, and reinforced the CDD approach. It supported arguments suggesting that CDD approaches are capable of delivering investments that impact beneficiaries in a cost-effective manner.

Rural Infrastructure Support to the PNPM Mandiri Project II (Loan 2575)9

15. Approved in 2009, the Rural Infrastructure Support to the PNPM Mandiri Project II had total estimated funding of $113.5 million. Phase II was approved in 2009 and was supported by an OCR loan of $84.2 million.10 The project was designed to be implemented in four provinces: Jambi, Lampung, Riau, and South Sumatra. The project outcome was to be improved access to service delivery and provision of basic rural infrastructure for the poor, women, and vulnerable communities. The project included three outputs: (i) strengthening of capacity for community planning and development, (ii) improving village services and infrastructure through community development grants, and (iii) improving the capacity of project implementation and monitoring and evaluation at national, provincial, and district levels. Project financing envisaged financing two cycles of CDD for 2 years each.

16. The project design incorporated lessons from the previous CDD projects, including community control of decision-making over resources and investment choices; adoption of a block grant approach,

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6 This project is also included under the transport sector, as it was reclassified under that sector in this CAPE.
7 PNPM Mandiri translates as the National Program for Empowerment of Independent Citizens (Program National Pemberdayaan Masyarakat Mandiri).
9 This project is also included under the transport sector, as it was reclassified under that sector for this CAPE.
and simple and transparent fund flow arrangements with direct transfers to community accounts; comprehensive facilitation support in community planning and preparation; and stronger accountability procedures and village management funds. About 90% of the medium-term poverty reduction plans prepared under the project were adopted as village medium-term development plans and used by district governments to provide budgets to these villages.

17. Further, more than 80% of the infrastructure that was built met national standards for rural infrastructure. Although women benefited from these investments, gender-related targets were only partially met. Project implementation included several good practices such as setting up of call centers as part of the complaints-handling and feedback system. Project support provided consulting services and project investments continued to be monitored even after project completion. Many of these features had been introduced as a part of PNPM Mandiri and continued to be deployed usefully.

**Urban Sanitation and Rural Infrastructure Support to the PNPM Mandiri Project (Loan 2768)**

18. Approved in 2011, the Urban Sanitation and Rural Infrastructure Support to the PNPM Mandiri Project was another in the series of PNPM Mandiri projects. The total cost of the project was $135.6 million and ADB provided an OCR loan of $100.0 million. The project outcome was improved access to both service delivery and healthy living conditions for the poor, near-poor, and women in the project communities. The project outputs were: (i) strengthened capacity for community planning and development, (ii) improved rural basic infrastructure through community development grants, and (iii) better sanitation services through urban neighborhood development grants. The rural component of the project was implemented in 36 districts in the provinces of Jambi, Lampung, Riau, and South Sumatra.

19. The project followed traditional arrangements, and a central project management unit was established at DGHS with five staff to provide overall coordination and management. Additionally, provincial project implementation units were established in nine participating provinces with three to five staff in each project implementation unit (PIU). District PIUs were established in 71 districts and cities also with three to five staff in each unit. Although there had already been a number of CDD and rural infrastructure projects, the heavy reliance on consultants at all levels continued. Some of the consulting services were financed from the government’s own resources. This was despite the fact that about 80% of the grants were used to finance the construction of transport facilities. Gender targets were not met and gender action policy (GAP) reports lacked a breakdown of data.

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11 This project is also included under the water supply and other urban services sector, as it was reclassified under that sector for this CAPE.


13 The project’s sanitation component was mostly urban with an associated TA project. Since this assessment focuses on ANR, neither of these aspects were included in this sector assessment.
FISHERIES, AQUACULTURE AND MARINE RESOURCES PROJECTS

Sustainable Aquaculture Development for Food Security and Poverty Reduction Project Loan (2285)¹

1. In Indonesia, aquaculture is a potentially important sector for fishers and coastal communities. At approval in 2006, the total project cost was estimated at $44.5 million. The Asian Development Bank (ADB) financed $33.3 million (about 75%) and the remainder was provided by national and district governments ($8.5 million) and the beneficiaries ($2.7 million). Actual cost at completion was $44.6 million. The project had three components: (i) increased aquaculture production, (ii) enhanced aquaculture support services, and (iii) strengthened institutional and project management support. Project investments in the sector opened new employment and earning opportunities through the production of fish and related products in fresh water, brackish water and marine areas. Beside opening a new venue for fishermen, the project increased food security and promoted nutrition while reducing pressure on coastal and marine resources.

2. Outcome. The expected outcomes of the project were an increase in fish production and other aquatic products, and improvements to the income, nutrition, and the employment status of poor fish farmers and coastal communities. The project was designed to be implemented in five districts in four provinces: (i) Langkat in North Sumatera Province, (ii) Ogan Komering Ilir (OKI) in South Sumatera Province, (iii) Karawang and Sumedang in West Java Province, and (iv) Buton in Southeast Sulawesi Province. The outputs of the project were 14,000 poor households organized for community managed aquaculture enterprise; brackish water aquaculture, and marine culture facilities built; freshwater aquaculture and hatcheries created.

3. The Director-General of Aquaculture (DGA) of the Ministry of Marine Affairs and Fisheries (MMAF) was designated as the executing agency. A project management office was established in the DGA to oversee day-to-day project implementation. A project implementation unit was set up in each of the five project districts. A regional advisory committee was established to liaise with the National Steering Committee and oversee project coordination between the various local agencies.

4. During implementation, targets for the aquaculture support services were drastically reduced. The original intention to build community enterprises consisting of small groups of fishing households was not pursued. The area of fishponds rehabilitated was reduced from 5,700 hectares (ha) to about 4,100 ha, i.e., 72% of the original target. In fact, the actual area of completed fishponds was even less (3,277 ha, i.e., 57% of the original target). Thus, while many outcomes were reported to have been achieved, some were not delivered.

5. Project implementation was initially disrupted as a Ministry of Finance decree guiding the transfer of grant funds to project districts through on-granting agreements was not operative. This affected the project in its first 2 years while this fiscal transfer situation was resolved. The project benefited women in the fishing community although the number of targeted women’s groups was reduced from 1,250 to 200 during implementation. The participation of women in aquaculture production, processing and training improved. Their capacity to engage in livelihood enterprises and contribute toward the family income improved.

6. Considering the importance of the fishery sector, including aquaculture, to food security and poverty reduction over the medium term, one would have assumed that the government and ADB would want to remain engaged and support deeper strategic analyses of the fisheries sector potential. There is evidence that the demand for services delivered through projects is there. District fisheries services are

Appendix 2

committed to supporting beneficiaries. Many of the fisheries groups established under the project have continued to work successfully and have become more self-reliant.

7. At appraisal, the project design targeted the creation of 18,000 jobs. However, the opportunities that were created were informal and took the form of daily work rather than regular full-time jobs. The assessment of project performance in terms of economic and financial rates of return did not take into account fluctuations in fish prices so it was not rigorous. Despite changes to the design and a reduction in output targets there were no savings, suggesting that unit costs may have been high.

Coral Reef Rehabilitation and Management Program (COREMAP)—Coral Triangle Initiative (CTI) Project (Loan 3094).  

8. This project was the last of a three-phase program in which the World Bank and ADB worked together with the government in complementary geographic areas focused on protecting and improving marine resources in the country. The first phase of the program (COREMAP I) helped to establish a framework for a coral reef management system in Indonesia. The second phase (COREMAP II) consolidated the knowledge base and adopted a community-based approach to decentralizing coral reef management. It also promoted public awareness of coral reef conservation. COREMAP II initiated institutional development for model marine product areas (MPA) systems. It examined the feasibility of sustainable livelihood activities by reducing fishing and relieving pressures in targeted coastal communities. ADB’s completion report as well as the project performance evaluation report (PPER) for COREMAP II identified important lessons and made recommendations for the COREMAP—CTI project design.

9. The COREMAP—CTI (a grant-based truncated version of the earlier planned phase III) sought to reinforce MPAs and implement a community-driven development design that would improve their institutional capability, infrastructure and earnings from marine resources in a sustainable manner. Based on the earlier two phases, the important features of the design were: (i) commitment and support from local government bodies, (ii) integration of value chain analysis of livelihood activities in the project design, and (iii) effective mainstreaming of gender concerns.

10. Recalling that Indonesia accounts for about 18% of the world’s coral reefs, the project design recognized that coral reefs, mangroves, and sea grasses had a vital role to play in mitigating climate change impacts in the region, e.g., increasing ocean temperatures, rise in sea-levels, and ocean acidification. Recognizing that the coral reef ecosystem was central to the improved management of MPAs, the outcome of the project was to enhance capacity to manage coral reef ecosystems inside and outside of the MPAs.

11. Designed as a sector project, the project envisaged four types of outputs: (i) coral reef management and institutions strengthened, (ii) ecosystem-based resource management developed, (iii) sustainable marine-based livelihoods improved, and (iv) project management. Two sample subprojects were designed and appraisal documented completed to guide the selection of the remaining eight subprojects. Preparation of an additional two subprojects was also begun but these were left in draft form to be completed subsequently.

12. The project area comprised seven district level subprojects and three national MPAs. The seven district subprojects were located in (i) Bintan, Batam, Lingga, and Natuna districts in Kepulauan Riau province; (ii) Central Tapanuli and North Nias districts in North Sumatra province; and (iii) Mentawai

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district in West Sumatra province. The three national MPAs were: Anambas in Anambas district, Kepulauan Riau province; Pulau Pieh in Pariaman district, West Sumatra province; and Gilimatra in North Lombok district, West Nusa Tenggara province.

13. The Directorate General of Marine, Coasts and Small Islands, MMAF was designated as the executing agency. Implementing agencies included: Directorate General of Marine, Coasts and Small Islands-Directorate of Area and Fish Species Conservation; LIPI-Research Center for Oceanography; and the Directorate General Capture Fisheries-Directorate of Fisheries Resources.

14. The total cost of the project was estimated at $66.7 million, of which ADB financed $45.52 million through its ordinary capital resources, and the Global Environmental Facility (GEF) provided grant financing for $8.0 million. The government financed the remaining $13.14 million. The project was delayed; by 2015, it was falling behind, largely because of delays in recruitment of consultants.

15. At this stage, the government that sought to restructure the project. First, MMAF wanted greater emphasis on livelihood aspects of the project. Second, it made LIPI-Research Center for Oceanography the new PIU, and wanted to substitute LIPI staff in place of some consultants. Finally, it wanted consulting services to be paid out of grant rather than the loan funds. Some of these changes could have been related to the 2014 amendment (Law 23) on local authorities.

16. After a special project mission, the loan was closed prematurely in December 2017 but the GEF grant is continuing. The amount of $30 million from the loan account was cancelled. During the country assistance program evaluation mission, BAPPENAS nevertheless expressed strong support for the MPA and indicated that it was keen to take over and continue the marine-protection related activities from MMAF. The grant under the project is being restructured to enable full achievement of the investment objectives.
INTEGRATED WATER RESOURCE MANAGEMENT PROJECTS

Integrated Citarum Water Resources Management Investment Program (Loans 2500, 2501), and Citarum Watershed Management and Biodiversity Conservation (Grant 0216)

1. The project was appraised as an integrated water resource management program in 2008 and was approved as a multifinancing facility (MFF). It covered the river-basin territories of the three river-basin organizations (Balai Besar Citarum, Balai Besar Ciliwung-Cisadane, and Balai Besar Cidanau-Ciujung-Cipurian) in West Java, DKI-Jakarta, and Benten provinces, and the Jakarta metropolitan area. The project supported integrated water resource management (IWRM) focused on and around Jakarta. Climate change issues were included under the program and were supported by additional financing. A large amount of technical assistance (TA) was attached to the project. The Ministry of Public Works and Housing was the executing agency for the loan and the Ministry of Environment and Forestry for the grant.

2. The total amount for the facility as a whole was estimated at $503.8 million. The first loans amounted to about $50.0 million ($20.0 million from ordinary capital resources and special drawing rights (SDR) 20.162 million (about $30.0 million) from concessional OCR loans (COL). A TA project in the amount of $3.750 million was also provided. The first periodic financing request (PFR) estimated costs at $103.39 million but actual expenditure was only $63.83 million (62%).

3. The investment program was in line with the country strategy and program and supported the following operational areas: strengthened environment and natural resources management, with enhanced water and marine resources management and reduced pollution. Eight type of outputs were envisaged under the program: (i) institutions and planning for IWRM, (ii) water resource development and management, (iii) water sharing, (iv) environmental protection, (v) disaster management, (vi) community empowerment, (vii) data and information, and (viii) project management.

4. As the program was designed to be delivered in four tranches, after the first PFR a project preparatory technical assistance project was approved for the second tranche, with a focus on bulk water supply. However, the financing required for the viable options, combined with watershed rehabilitation activities, was regarded as unjustified due to the “high transaction cost and limited scope of works.” The project completion report (PCR) noted that subsequent tranches did not have the required project readiness to continue the MFF modality (PCR, para. 8). No other PFRs were approved, and the facility was closed in May 2016.

5. The outputs envisaged under the first PFR were only partially achieved. In particular, Bekasi Syphon took a long time and the rehabilitation of West Tarum Canal was significantly delayed. The reasons included: delays in recruitment of consultants for design and engineering, and delays in issuing a decree for providing compensation to affected people in accordance with resettlement framework. The implementation of the resettlement plan was also delayed but was completed by 2016. The PCR

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1 In July 2010, a major change in TA scope was approved to increase the grant by $2.55 million and to expand the scope of the TA to cover climate change adaptation and mitigation. The additional amount was from ADB’s Climate Change Fund ($850,000 for mitigation and $1,700,000 for adaptation).


3 ADB financed $41.81 million, TA financed $10.84, the borrower financed $6.61 million, and the Global Environmental Facility financed $3.61 million. In addition, interest during construction was $0.96 million.


5 Approved by ADB as Category A in 2008 before approving the program. This was updated in 2010–2011.

noted that, although canal capacity was increased, the average water volume in West Tarum Canal was similar to the volume in 2007 before the project.

6. The project introduced low water consumption and organic rice farming approaches in about 3,000 ha (650 ha in Bandung District, 1,000 ha in Sabang District and 1,350 ha in Karawang District). It benefited 26,000 rice farmers and increased their incomes.

7. Under the Ministry of Health component, the community working groups were established and community training was conducted. Twenty-five community work plans were prepared to construct 29 water supply facilities, 28 units for community sanitation, and 27 units of community solid waste treatment and recycling facilities. The program benefited 201,630 people along the West Tarum Canal and in two upstream villages: “This subcomponent delivered more outputs than expected at appraisal due to optimization and addition of the budget during implementation.”

**Flood Management in Selected River Basins Sector Project (Loan 3440)**

8. ADB has pursued a number of flood management projects in Indonesia. Flooding has become worse over time due to the degradation of forests, increased sediment in rivers, and inappropriate land use for urbanization. Climate change issues (e.g., unpredictable or unseasonal rain, and rising sea levels) are adding to flooding risk and vulnerability. Periodic severe flooding damages infrastructure and erodes prior investments. The project sought to reduce the risk of flooding by building appropriate infrastructure and combining it with software support.

9. The project was approved in August 2016, at a total estimated cost of $161.6 million. ADB approved a loan of $108.7 million out of its ordinary capital resources. The project had four components: (i) enhanced planning for flood risk management, (ii) improvement of land management and upgrading of flood infrastructure, (iii) increased capacity for community-based flood risk management, and (iv) improved policy, coordination, and capacity at the national level.

10. The project followed a sector approach, and flood risk management was to be implemented in the following river-basin territories: (i) Cidanau-Ciujung-Cidurian, which was prone to riverine floods; and (ii) Ambon-Siram, which was prone to flash floods. The central government was responsible for 63 river-basin territories, provincial agencies for 53, and district agencies for 15. A central project implementation unit was established under the Directorate of Water Resources and Irrigation in the National Development Planning Agency to support the National Steering Committee for Water Resources.

11. The Directorate General of Water Resources (DGWR) under MPWH was designated the executing agency. A central PIU was established in the DGWR Directorate of River and Coast to provide technical guidance to the implementing agencies: the Balai Besar Wilayah Sungai (a major river basin organization), Cidanau–Ciujung–Cidurian, the Balai Wilayah Sungai (another river basin organization), Maluku. The river basin organizations, along with the provincial land agencies, were to prepare and implement the detailed engineering design and land acquisition and resettlement plans. A central project implementation unit was established in the Directorate General of Agriculture Infrastructure and Facilities.

12. As per the latest information in the internal documents, the project implementation has been delayed. Only 3% of the funding has been disbursed while about 20% of the time has elapsed. Contract

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Appendix 3

awards during the same time were 11% of the projected total. The major reason for these initial delays was the lengthy discussion about infrastructure awards and recruitment of consultants. There was also a re-working of project costs because some additional activities were included. It is early in the project cycle, and it is hoped that project implementation will catch up and outcomes will be accomplished on time.

**Integrated Participatory Development and Management of Irrigation Program (Loan 3529)**

13. The Integrated Participatory Development and Management of Irrigation Program was approved in 2017 for a total amount of $1,679.0 million. The program supports country’s sector plan for water resources and focuses on irrigation improvement program over 2015–2025. Surface irrigation in Indonesia is distributed across 48,000 irrigation systems, and it is spread across 7.2 million ha but the water availability is erratic. The Ministry of Public Works and Housing (MPWH) estimates that about 55% of the irrigation system functions at full capacity. The program was designed following ADB’s new results-based lending (RBL) modality.

14. ADB approved a results-based loan in the amount of $500 million from its ordinary capital resources. A part of the program was co-financed by the World Bank ($28 million) and by an ASEAN Infrastructure Fund loan ($100 million). The International Fund for Agriculture Development (IFAD) is financing a parallel project for the Ministry of Agriculture. The government has committed to invest $1,051 million in the program. The ADB loan is designed to be implemented across 74 districts in 16 provinces over 2017–2021.

15. The planned outcome of the program was sustainable and more productive irrigated agriculture in the program districts. The key outputs were to be: (i) systems and institutional capacity for sustainable irrigated agriculture strengthened; (ii) irrigation operation, maintenance, and management improved; and (iii) irrigation infrastructure improved. The DGWR of the MPWH was the executing agency for the program.

16. **Disbursement-linked indicators.** The program had eight disbursed-inked indictors (DLIs). These were interspersed across outputs and outcomes. DLI1 was linked with the overall outcome of sustainable and more productive irrigated agriculture in 74 districts. Three DLIs (DLI2, DLI3 and DLI4) were linked with the first output (systems and institutional capacity for sustainable irrigated agriculture strengthened) and the other three (DLI5, DLI6 and DLI7) with the second output (Irrigation operation, maintenance, and management improved). DLIs 1 to 7 were described as non-infrastructure-linked indicators. DLI 8 was the main indicator based on the third output (irrigation infrastructure improved). Taken together, DLI 8 dealing with increase in rehabilitated irrigation infrastructure, and DLI 5, dealing with improvements in irrigation asset management infrastructure accounted for about 78% of the ADB financing.

17. Measurement of the outcome and output indicators (including DLIs) relies on the reporting system of the executing agency. The Financial and Development Supervisory Board (BPKP), as the internal auditor of the government, is to verify achievements. BPKP is an independent agency and separate from

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10 ADB. 2017. Report and Recommendation of the President to the Board of Directors: Proposed Results-Based Loans to the Republic of Indonesia for the Integrated Participatory Development and Management of Irrigation Program. Manila.
11 An estimate suggests that the government is likely to invest as much as nearly $10 billion on the modernization of irrigation systems in the medium to long run, and about one-fourth of this amount is likely to be donor invested.
12 In 2015, a number of institutionalized reforms identified earlier in the ADB-financed Participatory Irrigation Sector Project (2003) were introduced. They serve as a regulatory framework for irrigation infrastructure, its management, and O&M.
13 Parallel financing under the World Bank’s ongoing Water Resources and Irrigation Sector Management Program II.
14 IFAD financing of €94.56 million was approved in December 2015.
15 Banten, Central Java, Central Sulawesi, East Java, East Nusa Tenggara, Lampung, Nanggroe Aceh Darussalam, North Sulawesi, North Sumatra, West Nusa Tenggara, South Kalimantan, South Sulawesi, South Sumatra, West Java, West Kalimantan, and West Sumatra.
the executing and implementing agencies. It has a decentralized organizational structure and is mandated to verify government financial and development activities.

18. The executing agency is DGWR, MPWH. National river basin organizations (RBOs) and provincial and district water resource agencies (WRAs)—as implementing agencies—are expected to deliver infrastructure investment and irrigation services, according to their respective level of responsibility. Implementation has begun well. The program is assisted by an attached TA which is providing it with comprehensive support. A detailed review and report by an ADB mission in May 2018 found the project was making progress on all fronts although only initial steps had been taken at that time. The mission noted its slow start-up especially in relation to the program action plan and social safeguards. Guidelines and procedures need to be developed to deploy new technologies for the first time in the sector. There is a need to undertake training and capacity building to ensure that activities are implemented well through a decentralized system of public administration.

19. IFAD’s support is designed to complement the program by addressing underperforming extension services, poor access to financial services, and inefficiencies in the value-chain and cropping patterns that contribute to low farm productivity and incomes.
Rural Income Generation Project (Loan 1583)

1. The project was an expanded version of an earlier International Fund for Agriculture Development (IFAD) intervention focused on rural income generation.\(^1\) Approved in the wake of 1997 Asian economic crisis, the project was expected to sustainably increase the incomes of 4,000,000 persons in 800,000 poor families across 126 districts in 12 provinces (West Java, Central Java, East Java, Bali, West Nusa Tenggara, Yogyakarta, Bengkulu, Riau, Lampung, South Sumatra, South Sulawesi, and South Kalimantan). The project sought to establish self-help groups to identify and promote business ventures and to provide households with access to microfinance, along with opportunities for skills development and training in income-generating activities. The executing agencies for the project were the Agency for Agricultural Human Resource Development (AAHRD) and the Bank Rakayat Indonesia (BRI).

2. The project was approved in 1997 for $137 million, with an ordinary capital resources (OCR) loan for $49.3 million with cofinancing from IFAD in the amount of $20.3 million. During implementation, the scope of the project was extended to include tsunami-affected districts. The project was closed in November 2008.\(^2\) The actual project cost was $86 million (63% of the amount at appraisal). The project completion report (PCR) assessed the project successful but the Independent Evaluation Department validation downgraded the assessment to less than successful.

3. Implementation of the project experienced some problems related to decentralization and restructuring of the administration at different levels, leading to loss of authority, expertise and information during implementation. The scope of the project was also too wide. Top-down planning resulted in weak ownership by project beneficiaries. The project design did not have baseline data, so monitoring and evaluation systems could not be established or utilized. This impeded the PCR's assessment of project’s outcomes. The project’s mid-term review identified some useful remedial measures, and they proved helpful in the continued implementation of the project.

4. The project design included gender and development features, and it was noted that the performance of all-women self-help groups was better than those of other self-help groups. After the tsunami in 2004, the scope of the project was expanded to include support for the affected districts. However, the project did not utilize the available funds in full. The project also faced difficulties in utilizing the consulting services provided under the project. However, the government was committed to the project and continued with its approach even after it closed. A more limited focus covering fewer provinces would have perhaps helped implementation of the project.

Community Empowerment for Rural Development Project (Loans 1765 and 1766)

5. Approved in 2000, the project ($170.2 million) was focused on increasing rural incomes in 11 districts in six provinces (Central Kalimantan, East Kalimantan, South Kalimantan, Central Sulawesi, North Sulawesi, and South Sulawesi).\(^3\) Funded from ADB’s OCR ($65.0 million) and the Asian Development Fund ($50.0 million), the project supported the government’s reform efforts to promote community-based

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\(^1\) The reference is to the Rural Income Generation/P4K Phase III Project. P4K is the acronym of Proyek Peningkatan Pendapatan Petani Kecil (Income Generating Project for Marginal Farmers and the Landless). It was jointly financed by IFAD, United Nations Development Programme, and the Netherlands.


\(^3\) ADB. 2000. Report and Recommendation of the President to the Board of Directors: Proposed Loans and Technical Assistance Grant to the Republic of Indonesia for the Community Empowerment and Rural Development Project. Manila.
participatory and decentralized development in districts and the lower echelons of administration. Women were expected to benefit directly from training, and assistance to microenterprises was expected to be women-owned.

6. Project outcomes were to: (i) empower rural communities by strengthening their capacity to plan and manage their own development activities; and (ii) support investments, foster rural–urban linkages, and establish rural infrastructure to promote agricultural productivity and off-farm business enterprises. The project was consistent with the government’s National Program for Community Empowerment (PNPM Mandiri). An attached technical assistance (TA) assisted in project implementation, but the PCR rated the TA less than satisfactory.

7. The project was generally well implemented and it closed on time, although it ran into a major problem. The savings and loan component could not be implemented in full as designed as the regional development banks were not keen on becoming the executing agency for the credit subcomponent. The credit line through the banks was cancelled in July 2005. The project design also was overly optimistic in suggesting that the ADB share of financing under the project could be reduced from 80% to 60% after the first 3 years. This added to the problem of counterpart funding. The project also faced difficulty in utilizing the loan consultants properly as four different firms were recruited in four different packages, and there were problems in creating a cohesive team out of the individual consultants. Finally, one consultant was appointed the overall leader after the major change in scope during the mid-term review in December 2004.

8. All these impediments culminated in the executing agency not being able to utilize the available funds fully. Only $74.6 million (about 65% of the total loan funds) could be used. Although the number of villages to be covered under the project was reduced from 750 to 543, provision of infrastructure in terms of roads and bridges exceeded the appraisal targets. The project had a number of achievements to its credit. These included the setting up of a baseline, establishing project performance management system (PPMS), building human resource capacity at the lower levels, and undertaking infrastructure activities at the community level. A number of households were raised above the poverty line, although the survey methodology needed to be improved. A complaint was filed with the office of the Special Project Facilitator about the incorrect sequencing of project activities by the five villages of Kiram, Handil Baru, Kali Besar, Handil Negara, and Mandiangin Barat in South Kalimantan but it was satisfactorily resolved. The PCR rated the attached advisory TA less than satisfactory because the fiscal management system proposed by the TA was “too complex for the region.” The project was assessed successful.

Marine Coastal Resources Management Project (Loan 1770)

9. Approved in 2000, the Marine and Coastal Resources Management Project ($70.2 million) was designed to support Indonesia’s rich coastline and its biological diversity. It was financed by an ADB loan of $50.0 million. Because of the pressure of economic development in previous decades, Indonesia had neglected its natural and marine resources. As part of the government’s decentralization initiative, local governments were recognized as being responsible for managing natural resources. The project sought to assist local governments and relevant national agencies by strengthening their capacities for proper planning and management of marine and coastal resources. The project was to be implemented in priority areas of 15 provinces.

10. The Ministry of Marine Affairs and Fisheries (MMAF) was the executing agency. Initially the project was to be implemented at the provincial level. However, with the recognition of district units (as

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per Law 27/2007), implementation arrangements were expanded to include 41 districts in addition to 15 provinces. The project experienced difficulties during implementation with regard to the timely availability of counterpart funds, and ensuring funds availability at the local level in districts. The project was supported by a TA for which the executing agency was the Ministry of Home Affairs and Regional Autonomy. The PCR assessed the TA less than successful.

11. The project’s integrated approach to fishery development was relevant to the government’s development objectives of increasing productivity and household incomes, conserving and protecting natural resources, and developing community groups that are self-sustaining and self-reliant. The provision of long-term consultants based in each province helped to increase the capacity of local governments. So did successful implementation of the integrated coastal zone planning and management system. A landmark achievement of the project was helping to develop Law No. 27/2007 through a bottom-up approach that recognized local rights.

12. Most subprojects faced implementation issues because local agencies did not have clear rights and responsibilities to plan, monitor, and oversee the O&M of the subprojects during and after their completion. The quality of consulting services in certain areas was rated less than satisfactory. The project had limited stakeholder participation, mainly because resources were thinly spread among the project sites. In future, the capacity of local governments to borrow funds from international and domestic sources may be explored to support the development process.

Coral Reef Rehabilitation and Management Project Phase II (Loan 1962)

13. Approved in 2002, phase II of the project had a total cost of $41.25 million. The ADB portion was funded through ADF for $33.0 million. The project covered six districts in three provinces, and the intended outcome was: (i) enhanced national and local capacity to manage coral reef resources and effectively managed priority reef areas, and (ii) increased incomes and improved living standards of poor coastal communities of 10,000 households. The project sought to strengthen institutions and undertake project management, as well as to promote community-based resource management and development.

14. The institutions entrusted with natural resource management and regulation became more proficient through the capacity building activities. The project provided support to technical staff, created better networking facilities and resources, and benefited from the assistance provided by NGOs and extension workers. As a result, better and closer collaboration and coordination among implementing agencies, fishing communities and other stakeholders emerged. A total of 729.7 person-months of consultancy services were used, exceeding appraisal estimates by 185.7 person-months (an increase of 34%).

15. Once the project had overcome its initial implementation problems, the improved coordination among enforcement and/or regulatory institutions and communities, and some comprehensive awareness campaigns ensured that the communities accepted the coral reef management tasks entrusted to them. Mobilization and organization of coastal community groups and their subsequent participation in planning social infrastructure facilities helped to create a favorable climate for partnership among citizens, national and district governments and NGOs.

16. These two Japan Fund for Poverty Reduction (JFPR) projects (the first for $2.5 million and the second for $1.5 million) were approved in August 2005 as reconstruction and rehabilitation assistance in the wake of the earthquake and tsunami in 2004 in which thousands of people lost their lives and livelihoods. Livelihood Development for Coastal Communities Project aimed to provide support to communities (especially women) in Aceh Besar and Aceh Utara districts in the Special Province of Nanggroe Aceh Darussalam (NAD) to restore their livelihood assets and income generating activities. The Rehabilitation of Coral Reef and Mangrove Resources Project had the objective of raising the incomes of poor coastal communities in Aceh Besar district and Banda Aceh through rehabilitation and sustainable management of coral reefs and mangrove resources damaged by tsunami.

17. Both projects had similar implementation arrangements and were implemented by the same NGO: Organization for Industrial Spiritual and Cultural Advancement (OISCA), an international NGO based in Japan. The projects were implemented in conjunction with ADB’s grant-financed Earthquake and Tsunami Emergency Support Project. At the time of approval, MMAF was designated as the executing agency for both projects but implementation ran into start-up problems. MMAF faced difficulties in mobilizing the projects from Jakarta. After long negotiations, ADB reached an understanding in 2007 that the Rehabilitation and Reconstruction Agency (BRR) would act as the executing agency. Implementation began only in 2008 but in 2009 BRR itself was disbanded. The Aceh Provincial Marine Affairs and Fisheries Service (Dinas) took over as the executing agency. The original closing date of 2007 was extended till 2010.

18. Implementation was slow. As noted in the implementation completion report, significant changes were made in the original design of the project and its funding. The original projects were designed to serve as emergency support but by the time implementation began, ground conditions had changed. Other donor programs, including the ADB project, had carried out preliminary reconstruction. A major change in scope was carried out to re-orient to the two JFPRs in May 2009. The civils works component was dropped and the revised projects focused on (i) community empowerment and (ii) sustainable livelihoods.

19. In addition, these two JFPR-funded projects faced problems in receiving adequate amounts of funds from ADB on time due to excessive procedural and bureaucratic problems. OISCA noted that even small grant withdrawal applications had to pass “through 5 levels of review and verification” between the project management office and the then Central Operations Services Office in ADB.

20. Despite these issues, OISCA implemented the projects and prepared detailed progress reports, with project data, descriptions of activities, and achievements. Reports with achievements up to the end of 2010 are available on the OISCA website.

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7 ADB. 2005. Proposed Grant Assistance to the Republic of Indonesia for the Sustainable Livelihood Development for Coastal Communities in the Special Province of Nanggroe Aceh Darussalam Project (Financed by JFPR). Manila.
8 ADB. 2005. Proposed Grant Assistance to the Republic of Indonesia for the Rehabilitation of Coral Reef and Mangrove Resources in the Special Province of Nanggroe Aceh Darussalam Project (Financed by the Japan Fund for Poverty Reduction). Manila.
10 ADB. 2012. Indonesia: Implementation Completion Memorandum: Sustainable Livelihood Development for Coastal Communities in the Special Province of Nanggroe Aceh Darussalam (NAD) financed by JFPR. Manila.
Participatory Irrigation Sector Project (Loans 2064, 2065, and 4229)

21. Approved in 2003, the Participatory Irrigation Project with a total cost of $126.5 million was financed by a loan of $73.0 million ($19.0 million from ADF and $54.0 million from OCR). The Government of the Netherlands cofinanced the project with a grant of $15.0 million. The outcome was to be sustainable decentralized management of irrigation systems and increased yields in irrigated crops across 25 districts in provinces of Benten, Central Java, East Java, Lampung, South Sulawesi and West Java.

22. The project targeted four outputs: (i) upgrading of district capacity for the management of the devolved irrigation responsibilities; (ii) improving irrigation performance at the scheme level; (iii) rationalizing and developing district agricultural services, strengthening and empowering water users’ association (WUAs), and increasing farmers’ access to agricultural services and inputs; and (iv) upgrading of the water resource management information system. In the beginning, the project experienced slippage due to the adjustments required for the new Water Law, No. 7 issued in 2004. Fund transfer to the field was slow, because the project design expected a pro rata transfer of funds from the three funding sources: ADF, OCR, and the Netherlands grant.

23. The project was initiated on the government’s initiative in 1995 to promote farmer-managed irrigation systems with the direct involvement of local governments and beneficiaries. The three outcome indicators used in the DMF did not monitor the decentralized progress of irrigation management (e.g., delegation of decision making and the budget). The primary and secondary canals were the responsibility of provinces while tertiary canals were the responsibility of WUAs. O&M carried out by the province was adequate but it remained inadequate at the district level.

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