

Getting to know green jobs in Pangandaran regency tourism area

Abstract

Climate change and global concerns about the availability of natural resources are serious issues in Indonesia. Green jobs are one of the alternatives to deal with these issues. These jobs are socially inclusive and can come from conventional sectors such as agriculture, construction, transport, tourism, and manufacturing or from new sectors such as renewable energy and energy efficiency. Pangandaran as one of the tourist destinations in Indonesia has great potential in implementing green jobs. The author reviews the socialization of green jobs and green economy concepts in Pangandaran Regency. We look at the policies that have been made, namely through the Regional Regulation of Pangandaran Regency or other regulations in accordance with applicable laws, to find out the development of green jobs in Pangandaran. We also review the use of budgets in several sectors to determine whether or not the programs run are in line with the vision and mission of national development that supports low carbon development year 2020 to 2024. We use a qualitative method that focuses on case studies related to the research topic. This research aims to understand the social phenomenon of green jobs through a holistic picture and multiply in-depth understanding of the data obtained. It can be said that the concepts of green jobs and green economy have not been applied in Pangandaran Regency based on our observations in the field and analysis of the data. This is due to several obstacles, namely the poor state of regional finances due to Corona Virus (Covid-19), effect of the global recession, and the low qualifications/ competence of human resources in sectors related to green jobs.

Keywords: green jobs, green economy, tourism, Pangandaran regency

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Apit Nurmalasari

Secretariat of the Regional People's Representative Council of Pangandaran Regency, Citra Buana, Indonesia

Correspondence: Apit Nurmalasari, Secretariat of the Regional People's Representative Council of Pangandaran Regency, Citra Buana, Indonesia, Tel +62 83826292591, Email aerisfian@gmail.com

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Introduction

Green jobs is defined as decent work that contributes to sustainability.¹ The concept of green jobs in Indonesia began to be recognized in line with the implementation of the circular/ green economy of Medium-Term Development Plan, namely RPJMN, Year 2020 to 2024.² This is due to climate change and global concern about the availability of natural resources, including Indonesia. We need to understand that green jobs create many new jobs and some jobs will be replaced or eliminated when some jobs are transformed. Therefore, several things are needed to support the development of green jobs, which include an integrated curriculum in the education sector so that the workforce produced, understands the green economy and has qualified field skills. Business transformation from non-fit environmentally friendly environmentally and large investments in the economic sector, formulating regulations on green jobs, publishing maps information about green jobs, and collaboration between stakeholders, are also included to it. The challenge of business transformation and investment in green jobs lies in the adoption of green technologies that must fulfill the principles of desirability by considering the green market share, viability by considering the need for green technologies, and feasibility by considering whether or not green business can run. There are several policies related to green jobs that have been made, namely: (i) Low carbon development (RPJMN 2020 to 2024); (ii) Energy sector policy; (iii) Energy conservation and energy efficiency policy; (iv) Acceleration policy of battery-based electric motorized vehicles in the transportation sector; and (v) Circular economy policy. The Government of Indonesia funds several activities related to the program, such as forest rehabilitation and forest fire patrol activities in the forestry and peatland sector; mangrove and coastal rehabilitation in the coastal and marine sector; and Farmers, farmer extension workers, and ex-mining rehabilitation

workers in the agriculture sector. They also support Renewable energy development in the energy sector, electric vehicles, public transport, electric trains in the transport sector; and Infrastructure development and waste/ liquid waste treatment (called TPS3R) and Recycling Center in the waste sector. TPS3R is an organic waste processing system by applying waste shredder and compost sifter technology. It has resulting compost which can be used to fertilize ornamental or commercial plants. The widespread use of compost can support low carbon ammonia ecosystems in sustainable development.

The Indonesian Government continues to encourage the use of electric vehicles by issuing Presidential Regulation 55/2019 concerning the Acceleration of the Battery-Based Electric Motor Vehicles Program by involving electric motor vehicles industry manufacturer, the construction of public electric vehicles charging Station (called SPKLU) by State Power Plant, and the purchase of vehicles without batteries by concept of battery swapping.³ In addition, Government of Indonesia through the Minister of Transportation issued Regulation Number 65/2020 concerning the Conversion of Motorbikes with Fuel Oil Motor Drivers in Battery-Based Electric Motorbikes. In mid-December 2022, they finalized incentive rules for the purchase of electric cars or motorbikes.⁴ The incentive for the purchase of an electric car is IDR 80 million, for hybrid-based electric car IDR 40 million, for an electric motorbike IDR 8 million, and for conversion to an electric motorbike IDR 5 million. Furthermore, electric vehicles are designated as operational service vehicles and/ or individual service vehicles for Indonesian Government and Regional Government agencies in accordance with Presidential Instruction Number 7/2022. The Government of Indonesia, through the Ministry of Transportation, issued two regulations regarding electric vehicles, namely Regulation of the Minister of Transportation Number 44/2020 concerning Physical Type Testing and Regulation of the Minister of

Transportation Number 45/2020 concerning Certain Vehicles Using Electric Motor Drives which regulates vehicles technical requirements, passable lanes, and user requirements.⁵ Physical type testing includes the performance of electric accumulators, electric energy recharging devices, testing the ability to protect against electrical contact, functional safety, and hydrogen emissions. The electric motor vehicles referred to in the two regulations are two-wheeled vehicles (electric motorbikes), four-wheeled vehicles (electric cars and electric buses), and electric motor vehicles that are not used on roads such as electric bicycles, electric scooters, hoverboards, unicycle, and electric autopets.

We can said that green jobs aim to protect and restore ecosystems based on the previous explanation, also improve efficiency and raw materials, minimize waste and pollution from production processes, limit greenhouse emissions, and support adaptation to climate change.⁶ These jobs are socially inclusive and can come from conventional sector such as agriculture, transportation, tourism, and manufacturing or from new sectors such as renewable energy and energy efficiency.⁷ Pangandaran as one of the tourist destinations in Indonesia has great potential in implementation of green jobs. The authors reviews the socialization process of green jobs and green economy concepts in Pangandaran Regency. We looks at the policies that have been made to find out the development of green jobs in Pangandaran, namely through the Regional Regulation of Pangandaran Regency or other regulations in accordance with applicable laws. We also reviews the use of budgets in several sectors to determine whether or not the programs run are in line with the vision and mission of national development that supports low carbon development (RPJMN 2020 to 2024).

Experiment methods

The author uses a qualitative method that focuses on case studies related to research topic. We aims to understand the social phenomenon of green jobs through a holistic picture and reproduce an in-depth understanding of the data obtained.⁸ The data are official documents in the form of regional regulations and Regent's accountability reports that are analyzed descriptively, observation notes and interviews. The research was conducted in Pangandaran Regency, West Java, Indonesia. To find out the development of green jobs in Pangandaran, the author looks at the policies that have been made, namely through the Pangandaran Regency Regional Regulation or other regulations in accordance with applicable laws. To see the realization of the implementation of the concept of green jobs or green economy, the author reviews the absorption of the APBD (Regional Revenue and Expenditure Budget) from 2020, 2021, and 2022 in several sectors that are part of the Indonesian government program, then compares them against each of these years. Furthermore, the author reviewed the socialization of the concept of green jobs and green economy in Pangandaran Regency by conducting an interview with one of the members of the Pangandaran Regency Regional People's Representative Council. The author also made direct observations in the field of shops that provide electric vehicles both motorcycles, electric motors, and electric cars in Pangandaran Regency.

Results and discussion

Green jobs are a consequence of the implementation of a circular economy or green economy that includes reusing, repairing, and recycling. These activities can increase sustainable production and consumption, reduce waste, save energy, contribute to climate and biodiversity damage, and reduce pollution of water, land and air due to economic exploitation. The tourism sector is categorized

as one of the most potential sectors for creating green jobs.^{7,9} For example, ecological tourism (ecotourism). Ecotourism is tourism with conservation principles that are responsible for the preservation of nature, provide economic and educational benefits, and maintain cultural integrity for the local community.¹⁰ Ecotourism in Pangandaran Regency is packaged in the form of a tourist village. This sector requires adventure experience design activities, the creation of high mountain trails, the discovery of protected areas, and the renewal of rural areas. All of these jobs require an environmentally oriented workforce. There are two villages in Pangandaran Regency that have been designated as tourism villages, namely Tourism Village Kertayasa and Tourism Village Selasari (Figure 1).



Figure 1 The Buhun art of Benjang Batok in tourism village Kertayasa, tells the story of daily life of women in ancient times when the harvest season arrives while accompanied by music of angklung and kendang (www.jadesta.kemenparekraf.go.id).

Kertayasa was designated as Tourism Village by Regent Pangandaran on 15 May 2018.¹¹ The village can be reached by motorized vehicle and offers a variety of natural and cultural tourism potential, such as Body Rafting Green Canyon, Body Rafting Green Coral, Camping Ground Taman Wisata Palatar, Benjang Batok Art, Badud Art, Angklung Art, and Ngecek Balong. Tourism Village Kertayasa is managed by the village-owned enterprise (called BUMDes) Guha Bau, which was established in 2013 by implementing an organizational restructuring, establishing a job description for each member of the BUMDes management, establishing a coordination system between business units and across villages, drafting forms and rules of cooperation with third parties, drafting BUMDes organizational work guidelines, designing a BUMDes information system design in the form of a website and social media accounts, designing a business plan for a period of one to three years, drafting an administration and bookkeeping system, and designing a recruitment process and a payroll/ wage system.¹²

The Tourism Village Selasari was established by Regent Pangandaran on 16 February 2021 and can be accessed by motorized vehicles both two and four wheels.¹³ It offers a variety of natural and cultural tourism potential, such as Santirah River Tubing, Goa Lanang, Pepedan Hills, Caving and Camping, Angklung Buhun Art, Lebon Art, and Ronggeng Gunung Art. In Addition, Tourism Village Selasari also offers educational tours such as bee-keeping, Robusta bean processing, knitting skills, and a waste bank. Tourism Village Selasari is managed by the village-owned enterprise (BUMDes) Putra Mandiri Selasari, which established in 2017 and applies GCG principles (Good Corporate Governance), namely transparency,

independence, accountability, responsibility, and fairness. BUMDes Putra Mandiri Selasari collaborates with Bank Indonesia, state owned-enterprise, and Jawa Timur to develop facilities and marketing for MSMEs (Micro, Small, and Medium Enterprises) in the tourism village. Tourism Village Selasari adopts cashless payments using Q-ris (QR Code) and visit reservations can be made online (Figure 2).



Figure 2 Honey bee cultivation in tourism village Selasari (www.jadesta.kememparekraf.go.id).

Apart from tourism sector, the agriculture sector through organic agricultural products and the transport sector through electric vehicles, public transport, and electric trains, are also the most potential sectors in creating green jobs. The qualifications required depend on the field. For example, an undergraduate or postgraduate who wants to work in the transportation sector should specialize in everything related to electric vehicles and electric trains, or a person who designs packaging in the manufacturing sector should be well versed in environmentally friendly materials.¹⁴ The author looks at the policies that have been made to find out the development of green jobs in Pangandaran, namely through Regional Regulations of Pangandaran Regency or other regulations in accordance with applicable laws. Regional Regulation Number 22/2016 on Environmental Quality Control, Pollution, and Monitoring aims to ensure that environmental quality in Pangandaran Regency is maintained. This regional regulation has supported sustainable development. Furthermore, Regional Regulation Number 13/2018 on Hazardous and Toxic Waste Management aims to avoid pollution that can damage the environment by using environmentally friendly technology or at least to reduce hazardous and toxic waste. Regional Regulation Number 14/2018 on the Protection of Sustainable Food Agricultural Land was created as a guideline to ensure the protection of agricultural land due to the decreasing agricultural land due to conversion of agricultural land into non-agricultural land.¹⁵ Article 2 states that the protection of sustainable food agricultural land is organized based on the principles of sustainability and consistency, environmental sustainability and local wisdom, diversity, social and culture. This has been done to maintain ecological balance (Article 5). Article 34 states that Local Government protect farmers, farmers groups, farmer cooperatives, and farmer associations by guaranteeing favorable prices of basic commodities, obtaining production facilities and infrastructure, marketing of basic agricultural products, and compensation for crop failure. Local Government also empower farmers through strengthening farmer institutions, counselling and training to improve human resources, providing facilities for financing/ capital sources,

providing education and health facilities for farmers, and providing access to science, technology or information about agriculture (Figure 3).



Figure 3 Santirah river tubing in tourism village Selasari (travel.kompas.com).

Regional Regulation Number 7/2018 on the Master Plan for Regional Tourism Development Year 2018 to 2025 provides a policy basis for strategic issues in regional tourism development as an integral part of the Long-term Development Plan which is carried out in an integrated, sustainable, and responsible manner towards cultural values, sustainability, and environmental quality. Article 5 states that the Regional Tourism Development Master Plan refers to the principles of tourism implementation which include responsible and sustainable tourism development and the preservation of nature and the environment. This is in line with the vision of tourism development in Pangandaran Regency, which is to become a world-class tourist destination based on the environment/ nature, and culture (Article 6). Article 9 states that tourism development through rural tourism, agritourism, ecotourism, and other types of tourism based on rural nature and agriculture. The tourism development strategy includes tourism destinations including the control and protection of tourism resources, the establishment of cultural, culinary, and other supporting tourism destinations in the region as well as the design of tourism product development activities through tourism packaging and festival calendars; the tourism industry includes the application of quality standards for tourism products and services, developing creative business and investment in the tourism sector, and building tourism partnership/ networks; tourism marketing includes the use of information technology and market research, strengthening the regional tourism image; and tourism institutions include strengthening tourism organizations, simplifying investment-related regulations, improving human resources, and increasing the quality and quantity of Tourism Education Institutions. Furthermore, Regional Regulation Number 05/2018 concerning Social Welfare as an economic recovery policy to increase competitiveness based on local wisdom. Regional Regulations Number 8/2019 concerning Tourist Guests has also referred to green jobs. Article 2 paragraph (c) states that the implementation of tourism is based on the principle of sustainability and Article 3 paragraph (e) states that the implementation of tour guides aims to preserve culture.¹⁶ Competence for tour guides is regulated in Article 5 to Article 7 and the salary/ wage of tour guides is regulated in Article 13 which states that tour guides get insurance rights from the Travel Bureau and get paid at least in accordance with the standards agreed upon Indonesian Tour Guide Association (called HPI) and Association of The Indonesian Tours and Travel Agencies (ASITA) or other parties. Then, Regional Regulation Number 14/2019 concerning Regional Public Company of Pangandaran Regency Drinking Water

(called Perumda) Article 5 states that the implementation of the Perumda is based on the principles of sustainability and Article 39 states that employee of Perumda receive fair and decent income according to workload, responsibility, and performance. Regional Regulation Number 11/2019 on Domestic Waste Water Management regulates the implementation of domestic waste water management systems including septage treatment plants and domestic waste water treatment plants in order to control the discharge of domestic waste water, protect water quality, and improve life preservation efforts. Article 48 regulates the utilization of domestic waste water treatment products in the form of liquid, solid, and gas. Products in the form of liquids are utilized for the needs of latrine flushers, air conditioners, and fire hydrants. Products in the form of solids are used for building materials, fertilizer mixture or compost which is still limited to non-food crops, even though compost can also be used for food crops. Non-food crops are crops that are not used for human food or animal feed, including algae for biofuels and bioenergy; wheat and bamboo for building and construction; coconut husk, cotton, and sisal for plant fibres used as yarn, building materials, and automotive; wheat, corn, and potatoes for environmentally friendly biopolymer packaging.¹⁶ Products in the form of gas utilized for renewable energy sources. In the 2020 set of Pangandaran Regency Regional Regulations, there are no regional regulations related to green jobs. Furthermore, Regional Regulation Number 2/2021 on Smoke free Area regulates areas free from smoking behavior and exposure to cigarette smoke that can reduce the quality of life and environment which includes health service facilities, places of teaching and learning process, palaces of worship, public transportation, workplace, public places, and other designated places that are used for community activities.¹⁷ The Regent Decree Number 070/Kpts.66-Huk/2022 on the formation of welfare of farmers and fishermen and formulate policies to improve the welfare of farmers and fishermen in Pangandaran Regency.

We review the absorption of Regional Revenue and Expenditure Budget (called APBD) in several sectors, that are part of the Indonesian Government zero carbon emission program in the Accountability Statement Report of Regent Pangandaran (called LKPJ) for Fiscal Year 2020, 2021, and 2022, to see the realization of the implementation of the concept of green jobs or green economy. In the LKPJ for Fiscal Year 2020, it is written that management of regional expenditure policies for selected affairs is optimized by utilizing local potential and regional characteristics to increase the added value of the regional economy including agriculture, forestry, energy and mineral resources, tourism, marine and fisheries, industry and transmigration.¹⁸ The waste management performance development program was budgeted at IDR 4.09 billion and realized at IDR 4.02 billion, including the provision of waste management facilities and infrastructure, preparation of the Detailed Engineering Design (DED) for the construction of Purbahayu Sludge Treatment Plant (STP) and the Pangandaran Tourism Area Waste Water Treatment Plant (WTP). The pollution and environmental damage control program was budgeted at IDR 54.5 million and fully realized, covering 31 points of water and air quality data. Protection and conservation of natural resources program is budgeted at IDR 2.6 million and fully realized, including guidance on climate change impact control. The quality improvement and access to information on natural resources and the environment program is budgeted at IDR 220.7 million and realized at IDR 219.3 million, which includes improving access to information on the status of the Pangandaran Regency environment and strategic environmental studies as the basis for sustainable development. The Green Open Space Management Program is budgeted at IDR 2.13 billion and realized at IDR 1.93 billion, including maintenance of green open spaces, arrangement of Pandega Hospital park, and rehabilitation of Pangandaran creative

center park. The program to control environmental impacts caused by activities/ business is budgeted at IDR 32.23 million and realized at IDR 34.19 million, including the handling of public reports related to alleged environmental pollution and damage and supervision of environmental permits for activities/ business actors. The aquaculture development program was budgeted at IDR 3.10 billion and realized at IDR 3.05 billion, including empowerment and protection of fishing communities, management and implementation of Fish Auction (called TPI) through cooperatives, development of fishing technology, exhibitions and promotion through fishermen's thanksgiving (called *hajat laut*), supervision and control of fisheries resources management, procurement of facilities and infrastructure for empowering small-scale fishing businesses. The domestic and overseas archipelago tourism promotion program was budgeted at IDR 1.15 million and realized less than 70%. Partnership development program through fostering tourism organizations was budgeted at IDR 80 million and realized at IDR 79.82 million. The creative industry development program was budgeted at IDR 36.11 million and realized at IDR 34.63 million, including the development of creative businesses and facilitation of creative industry capital. The tourism destination development program is budgeted at IDR 16.34 billion and realized at IDR 11.67 billion, including tourism levy services, *sapta pesona* services, *tirta* tourism safety services, improvement and maintenance of tourist destination infrastructure, arrangement of Karapyak Beach area and Pangandaran West-East Coast area, and revitalization of the main toll gate of tourist destinations. The sustainable tourism destination management development program is budgeted at IDR 1.06 billion and fully absorbed, including the formation of coordination team for the preparation of the GSTC-D (Global Sustainable Tourism Council) assessment, organizing tourism events in the low season, compiling a tourism database, analyzing tourist satisfaction, developing a tourism business register, creating promotional media, and improving tourism destination governance. The tourism economic development program was budgeted at IDR 344 million and absorbed at IDR 329 million, including capacity building for tourism actors. The program to increase agricultural/ plantation production was budgeted at IDR 22.2 million and almost fully absorbed through the promotion of regional superior agricultural/ plantation production. The field agricultural/ plantation extension worker empowerment program is budgeted at IDR 303.85 million and absorbed at IDR 351.23 million. The livestock production improvement program is budgeted at 609.41 million and absorbed at 591.54 million, including supervision and guidance on veterinary public health (called *kesmavet*), optimization of livestock data, assistance for people's business credit for ungag livestock commodities and their optimization, procurement of animal health center infrastructure. The food crop and horticulture production improvement program is budgeted at IDR 2.94 billion and absorbed at IDR 1.99 billion, including the construction of reservoirs, ditch dams, shallow groundwater irrigation, and tertiary irrigation channels/ networks, procurement of appropriate food crop and horticulture technology infrastructure and agricultural machinery, development of lowland vegetables, and acceleration of climate change impacts. The plantation production improvement program was budgeted at IDR 2.05 billion and absorbed at IDR 1.55 billion, including rehabilitation of plantation crops, manufacture of organic fertilizer processing equipment, construction of agricultural production roads, packaging training, and facilitation of insurance for coconut/ palm press farmers. The small and medium industry development program was budgeted at IDR 213.76 million and absorbed at 204.83 million, including regional potential exhibitions, coaching and training for small processed food industries and small handicraft industries. The social environment development program through training for tobacco farmer's small industries was budgeted at IDR 22.5 million and was not absorbed

because it was allocated for handling covid-19. The structuring program for the quality of economic development policies and regional potential was budgeted at IDR 364.85 million and absorbed at IDR 348.73 million, including coordination of business community partnership, formulation of economic development policies, BUMDes and Microfinance Institutions, coordination of regional inflation control, implementation of monitoring and evaluation of tourist destinations, formulation of environmental management and preservation policies, formulation of regional economic development policies, and facilitation of marketing MSMEs product with medium/large companies.

The optional affair of the marine and fisheries sector on LKPJ for Fiscal Year 2021, is budgeted at IDR 5.95 billion and absorbed at IDR 5.22 billion,¹⁹ including the making of fish auction tickets, facilitation of fishermen insurance participants, creation of fisheries and capture business supervisory community groups, provision of fishing support facilities (cooler boxes), provision of environmentally friendly fishing gear, socialization of fisheries laws and regulations, provision of data and information on fish resources, and provision of quality fish seeds. The environment sector was budgeted at 12.61 billion and absorbed at IDR 8.09 billion. The tourism sector is budgeted at IDR 19.49 billion and absorbed at 12.61 billion, including the promotion of tourism through print and electronic media, the provision of an accurate and up-to-date tourism database, increasing partnership cooperation with the tourism industry, fostering and supervising tourism awareness in communities around tourism destinations, implementing sustainable tourism destinations in destination management, procuring/ rehabilitating tourist destination facilities and infrastructure, facilitating funding and financing for the creative economy, training to improve the basic competencies of creative economy actors and tourism resources, and empowering communities in developing tourism partnerships. The agriculture sector is budgeted at IDR 12.03 billion and absorbed at 11.09 billion, including procurement of agricultural support infrastructure, construction/ rehabilitation of agricultural extension centers, maintenance of ditch dams, farming irrigation networks, facilitation of insurance for coconut farmers, preparation of definitive plans for group needs at agricultural extension centers, provision of agricultural extension facilities and infrastructure. The trade sector was budgeted at IDR 4.75 billion and absorbed at IDR 3.89 billion. The industry sector was budgeted at IDR 304.33 million and absorbed at IDR 278.08 million, including facilitation of industrial data collection, processing, and analysis. Industrial empowerment and community participation, and preparation of industrial development plans.

The environment sector on LKPJ for Fiscal Year 2022 was budgeted at IDR 14.91 billion and absorbed at IDR 13.25 billion.²⁰ The marine and fisheries sector is budgeted at IDR 9.74 billion and absorbed at IDR 7.15 billion, including capacity building of small fish farmers, provision of fish farming facilities, fish auction services, capacity building of small fishermen, provision of capture fisheries business facilities, and provision and distribution of raw materials for the fish processing industry. The tourism sector is budgeted at IDR 19.07 billion and absorbed at 15.65 billion, including tourism promotion, monitoring and evaluation of tourism promotion, provision of data and dissemination of tourism information, facilitation of funding and financing of creative economy actors, competency development of tourism human resources and creative economy actors, increasing community participation in tourism partnership development, training and technical guidance on creative economy, guidance and supervision of tourism business, provision of tourism business registration service, development of tourist attractions, application

of sustainable tourism destinations in destination management, procurement/ rehabilitation of tourist destination facilities and infrastructure, tourism destination development and planning, and tourism strategic area planning. The agriculture sector is budgeted at IDR 17.35 billion and absorbed at IDR 13.44 billion, including the development of farmer's institutional capacity, provision of agricultural extension facilities and infrastructure, maintenance of extension centers, construction/ rehabilitation of farm irrigation networks, supervision and maintenance of agricultural infrastructure and supporting infrastructure, utilization of animal/ crop genetic resources, and procurement of seeds/ livestock breeds. The trade sector is budgeted at IDR 440.64 million and absorbed at IDR 431.55 million, including coordination of the availability of basic needs and essential goods at the agent and public market level, implementation of re-measurement and weighing instruments, provision of trade distribution facilities, implementation of regular and special market operations, and monitoring of prices and stocks of basic needs and essential goods at the district market level. The industrial sector was budgeted at IDR 500.86 million and absorbed at IDR 495.35 million, including facilitation of industrial data collection, processing, analysis through the national industrial information system, facilitation of compliance with licensing technical requirements, and empowerment of industry and community participation. We see an increasing trend in budgeting and budget absorption every year for optional affairs that supports low carbon development. This shows that the program created by Pangandaran Local Government are in synergy with the Government of Indonesia.

The author also reviewed the socialization of the concept of green jobs and green economy in Pangandaran Regency. We conducted an interview on 13 October 2022 to one of the boards members of Commission 3 Mr. Deni Kusnani about one of supposed be a green jobs which is a waste picker at the Department of Environment and Forestry (called DLHK). For information, DLHK is an implementing element that has the task of assisting the Regent in carrying out government affairs and assistance tasks in the field of environment and forestry. For 2021 to 2026, DLHK Pangandaran Regency has a mission to: (i) realize bureaucratic reforms that serve, are effective, efficient, and accountable; and (ii) improve integrated and sustainable infrastructure development, spatial planning, and disaster mitigation. DLHK is tasked to carry out the functions of the agency as stipulated in Pangandaran Regent Regulation No. 60/2016 on the main tasks, functions, job descriptions, and work procedures of DLHK, as follows: (i) formulation as well as implementation of technical policies in the field of environment and forestry in Pangandaran Regency; (ii) implementation of evaluation and reporting in accordance with the scope of its duties; (iii) implementation of office administration; and (iv) implementation of other functions assigned by the Regent related to its duties and functions. The interview revealed that waste pickers earn less than IDR 600,000 per month or one-third of the Year 2022 minimum wage (called UMK) IDR 1,884,364.²¹ The educational qualifications of waste pickers are low, with many being primary school graduates. This is because many people with higher educational qualifications are reluctant to work in this field because it is considered low and unpromising. Furthermore, Mr. Deni Kusnani also said about the issue of waste handling at the coconut processing factories in Pangandaran Regency had become polemic. It had complaints from local residents for umpteenth time. The factory does not have an integrated waste treatment system. Previously there was a waste storage but it was full and has not been made new one due to location and cost constraints. Both the waste pickers and the existing waste treatment system have not implemented green jobs and green economy. In other words, the concept of green jobs or green economy

has not been applied in the field that indicate there are no socialization or the socialization was not good enough.

The implementation of regulations related to electric vehicles and the use of electric vehicles as operational service vehicles (Presidential Instruction Number 07/2022) in Pangandaran Regency is still far from expectations although the Indonesian Government continues to encourage the use of electric vehicles. There are no operational service vehicles and/ or individual service vehicles of Pangandaran Local Government agencies that use electric cars. Even entering 2023 until 2024, after the central government's policy to market electric vehicles, there are only a few shops that market electric motorcycles in Pangandaran Regency, even for electric cars there is not yet. This could be due to the lack of charging facilities as there is only one SPKLU (public electric vehicles charging station) available, the high price of electric cars, people are used to conventional vehicles, and the lack of literacy. However, the use of electric bicycles by the local community has been quite visible. Electric bicycles are environmentally friendly vehicles. Electric bicycles are a type of bicycle that can be used with manual power (pedaling) or with electric power from batteries. However, there are no bicycle lanes or special lanes for the use of electric bicycles or other Electric Motor Driven Vehicles on the public highways of Pangandaran Regency.

Conclusion

Pangandaran has a great potential because it is one of the tourism destinations in Indonesia, but the concept of green jobs and green economy has not been implemented in Pangandaran Regency. However, the policies made in the form of regional regulations and the absorption of the Pangandaran Regency's regional revenue and expenditure budget have been seen to be quite synergistic in supporting the Government of Indonesia's program in implementing environmentally friendly sustainable development (low carbon development). The obstacles in the implementation and development of green jobs and green economy in Pangandaran Regency are limited budget due to procurement of Covid-19, the unstable regional financial situation that affect by pandemic and global recession, and low qualification/ competence of human resources in related sectors that supposed being green jobs.

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Conflicts of interest

The author states that there is no conflict of interest in publishing this paper.

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