

Metode infiltracije organizovanih kriminalnih grupa u legalne tokove novca kroz ulaganja u projekte obnovljivih izvora energije

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Abstrakt

Sektor obnovljivih izvora energije (OIE) je u literaturi označen kao jedan od najprimamljivijih sektora za organizovane kriminalne grupe. Razlog tome jeste velika količina finansijskih sredstava koje države odobravaju kako bi podržale energetska tranziciju, potpuni prelazak na obnovljive izvore energije, smanjenje korištenja fosilnih goriva i djelovale pozitivno na smanjenje klimatskih promjena. Zbog velike količine finansijskih sredstava koje se ulažu u ovaj sektor, organizovane kriminalne grupe u njemu vide priliku za pranje novca stečenog ilegalnim aktivnostima i za dodatno stvaranje profita. Cilj ovog rada jeste da se dubinskim sistematskim pregledom dostupne literature istraže načini i metode koje organizovane kriminalne grupe koriste kako bi se infiltrirali u legalne novčane tokove i na taj način oprali novac.

KLJUČNE RIJEČI: *korupcija, kriminal, sektor obnovljivih izvora energije, infiltracija kriminalnih organizacija*

Uvod

Oblast kriminala u sektoru obnovljivih izvora energije je veoma kompleksna oblast jer podrazumijeva interdisciplinarno polje koje zahtjeva kadar specifičnog obrazovanja. Iz ovog razloga kriminal u energetsom sektoru generalno nema jedinstven teorijski okvir niti jedinstven pristup u objašnjavanju. Upravo iz istog razloga, kriminal u sektoru obnovljivih izvora kako u svijetu tako i u Bosni i Hercegovini nije dovoljno prepoznat i istražen kao fenomen. Zbog nedovoljne osviještenosti i edukacije stručnog kadra vrlo često se dešava da krivična djela koja su izvršena u projektima izgradnje elektrana obnovljivih izvora energije i drugim projektima u sektoru obnovljivih izvora energije ne budu nikada otkrivena ili budu otkrivena poslije jako dugo vremena. Navedeno je dijelom i zbog slabe zainteresovanosti naučne zajednice za ovu temu. Sama pojava kriminala u sektoru obnovljivih izvora energije je zapravo samo manifestacija jedne druge pojave, odnosno duboko ukorijenjenog problema sa kojim se država bori. Ono što se vidi iz vana, a to su korupcija, krađe, netransparentni procesi tenederisanja i aukcija, zloupotreba položaja, uništavanje okoliša i ekološki kriminal su pojavni oblici koji mogu da se manifestuju zahvaljavajući nevladavini prava i visokoj korupciji koja se u državama u razviju (ali i u pojedinim ekonomski razvijenim državama) uglavnom ne sankcioniše adekvatno. Loše upravljanje energetskim sektorom može imati veoma loše posljedice po ekonomiju države, te je tema prevencije i predikcija kriminala u sektoru obnovljivih izvora energije u Bosni i Hercegovini veoma složena i kompleksna i podrazumijeva kontinuiran rad državnih organa, nevladinih institucija i akademske zajednice.

Prilikom procesa izgradnje elektrane obnovljivih izvora energije, kriminalne organizacije imaju priliku da operu novac stečen nelagalnim aktivnostima. Ulaganjem u projekat, u građevinski materijal, lažiranjem faktura i napuhavanjem troškova kompletnog procesa izgradnje, kriminalna organizacija

može da opere velike sume novac praktički nesmetano (Caneppele et al., 2013; Checchi & Polo, 2020; Deiana & Geraci, 2021; Riccardi, 2014; Sergi & South, 2016; Sovacool, 2021; Sovacool et al., 2016).

Jedan od primjera u literaturi jeste i energetski sektor Bosne i Hercegovine. BiH je zemlja izuzetno bogata potencijalom obnovljivih izvora energije, a najviše hidroenergetskim potencijalom. Upravo je u hidroenergetskom sektoru zabilježen i najveći broj započetih projekata u Bosni i Hercegovini koji bi vrlo često ostajali nedovršeni, uglavnom zbog nedostatka finansijskih sredstava (Dogmus & Nielsen, 2020). Zbog svoje kompleksnosti, projekti izgradnje elektrana obnovljivih izvora energije mogu često poslužiti kao idealna prilika za organizovane kriminalne grupe koje vide način da investiranjem u obnovljive izvore energije povećaju svoj profit na ilegalan način, kršeći porcedure i pravila, te da operu novac stečen kriminalnim aktivnostima (Caneppele et al., 2013; Checchi & Polo, 2020; Endriana et al., 2023a; Fortelny, n.d.; Riccardi, 2014). Kriminal u sektoru obnovljivih izvora u Bosni i Hercegovini, kao i pravovremena predikcija i prevencija kriminala sektoru obnovljivih izvora u Bosni i Hercegovini gotovo da uopšte nije fokus akademske zajednice. Primijećen je veliki nedostatak naučnoistraživačkih radova na temu prisutnosti i pojavnih oblika kriminala u sektoru obnovljivih izvora energije, pogotovo u odnosu na literaturu koja je prisutna među stranim autorima.

Metodologija

Kako bi se analizirali načini na koji se kriminalne organizacije infiltriraju u legalnu ekonomiju, dubinski sistematskim pregledom literature analizirani su naučni radovi na temu kriminala u sektoru obnovljivih izvora energije. Kriminal u sektoru obnovljivih izvora energije nije bio u velikoj mjeri fokus naučne zajednice, te je isto rezultiralo manjim brojem naučnih radova na ovu temu. Iz toga razloga bilo je potrebno koristiti više različitih baza kako bi se prikupio veći broj radova. Pomoću ključnih riječi pretražene su slijedeće baze: Google Scholar,

Web Of Science i Scopus. Ključne riječi koje su korištene su: korupcija, kriminal, sektor obnovljivih izvora energije, infiltracija kriminalnih organizacija. Navedene pretrage su rezultirale prikupljanjem 34 naučna rada na temu kriminala u sektoru obnovljivih izvora energije.

Rezultati

Stabilnost energetskeg sektora i kontinuirano unapređenje kompletnog energetskeg sektora u skladu sa globalnim razvijanjem društva je jedan od najzahtjevnijih sigurnosnih izazova na globalnom nivou. Konkretno, kada je u pitanju obnovljiva energije, ovaj izazov postaje još kompleksniji. Ideja koja stoji iza stabilnog i kontinuiranog razvoja sektora obnovljivih izvora energije jeste borba protiv klimatskih promjena na globalnom nivou, smanjenje zavisnosti od fosilnih goriva i fokusiranja na razvijanju održivog snabijevanja električnom energijom iz obnovljivih izvora energije (Checchi & Polo, 2020; Deiana & Geraci, 2021; Di Foggia & Beccarello, 2024; Eitan et al., 2019; Hitzeroth & Megerle, 2013; Vakulchuk et al., 2020).

Kompleksnost sektora obnovljivih izvora energije se ogleda u mnogim izazovima koji su tehničke, finansijske, regulatorne, političke, ekološke i društvene prirode, što dodatno usložnjava procese unutar sektora obnovljivih izvora energije. Jedan od osnovnih izazova unutar sektora obnovljivih izvora energije jesu problemi upravljanja investicijama i općenito finansijskim sredstvima koji se slivaju u ovaj sektor. Ulaganja u sektor obnovljivih izvora energije su jako visoka na globalnom nivou, kao i popratna infrastruktura potrebna za integraciju elektrane u trenutnu energetske mrežu. Upravo iz finansijskih razloga, zemlje sa slabije razvijenim ekonomijama ne mogu da prate svjetske trendove prelaska na zelenu energije (Endriana et al., 2023a; Polzin et al., 2019; Qadir et al., 2021; Steffen, 2018). Takve države kasne za trendovima napuštanja dobivanje energije iz fosilnih goriva i prelaskom na dobivanje energije iz obnovljivih izvora.

Zemlje u razvoju pored finansijskih, imaju jedan veoma važan izazov u razvoju sektora obnovljivih izvora energije, a to je regulatorni i politički okvir. Pošto su projekti izgradnje elektrana obnovljivih izvora veoma kompleksni projekti, potrebno je da zakonski okvir koji uređuje proces izgradnje energetske objekata bude kvalitetan i potpun. U velikom broju zemalja u razvoju zakonski okvir koji reguliše sektor obnovljivih izvora energije još nije u potpunosti prilagođen kako bi podržao brzo uvođenje obnovljivih izvora energije. Sa druge strane, politika ima veliku ulogu u projektima izgradnje elektrana obnovljivih izvora energije (Jiang & Martek, 2021; Lawrence et al., 1997; Y. Lu et al., 2020). Ukoliko je evidentan nedostatak podsticaja i jasnih politika koje vode vladajuće strukture, onda takva poslovna atmosfera može odbiti potencijalne investitore i na taj način otežati razvijanje sektora obnovljivih izvora energije.

U takvim društvima, vrlo često se razvija nuspojava, a to je prisustvo kriminala u sektoru obnovljivih izvora energije. Kriminal u projektima izgradnje elektrana obnovljivih izvora energije se ne dešava samo u državama u razvoju, već i u državama se veoma razvijenima ekonomijama kao što je Italija, Španija, Nizozemska i druge. Navedeno govori o tome da je pojava kriminala u sektoru obnovljivih izvora energije sigurnosni problem kojem se treba obratiti pažnja, te intenzivno raditi na razvijanju modela i metoda kako minimalizirati pojavu kriminala u projektima izgradnje elektrana obnovljivih izvora energije, i u kompletnom energetske sektoru uopćeno. Organizovane kriminalne grupe vide idealnu priliku da kroz niz krivičnih djela iskoriste sektor obnovljivih izvora energije za dodatnu zaradu i pranje novca stečenog ilegalnim putem. Upravo zbog intenzivnog ulaganja u sektor obnovljivih izvora energije, organizovane kriminalne grupe mogu nesmetano doći do velikog izvora finansijskih sredstava služeći se uglavnom podmićivanjem državnih službenika i političkih struktura. Kriminalne grupe uglavnom imaju iste ili slične pristupe koji se baziraju na formiranju privatne firme koja se bavi u suštini legalnim poslom izgradnje

elektrana obnovljivih izvora energije, investiranjem u sektor obnovljivih izvora energije ili razvijanjem različitih tehnologija potrebnim za izgradnju elektrane obnovljivih izvora energije (Caneppele et al., 2013; Checchi & Polo, 2020; Deiana & Geraci, 2021; Riccardi, 2014; Sergi & South, 2016; Sovacool, 2021; Sovacool et al., 2016). Firma je u vlasništvu same kriminalne organizacije ili u vlasništvu lica koje je blisko kriminalnom organizaciji. Kako se firma bavi legalnim poslovima, ista konkuriše na tendere koje organizuje država u svrhu odabira potpisnika ugovora za izgradnju elektrane obnovljivih izvora energije. Kriminalne organizacije osiguravaju dobivanje projekta na razne načine, uglavnom podmićivanjem državnih službenika, lažiranjem finansijske dokumentacije i ostalih dozvola potrebnih za izgradnju energetske postrojenja. Sa druge strane, podmićivanjem državnih službenika ne samo da uspiju da dobiju ugovor i budu predstavljeni kao firma koja ispunjava sve uslove, već uspijevaju i da ubrzaju sve ostale birokratske procese, kao što su koncesije, potrebne dozvole za gradnju, ekološke studije, studije izvodivosti i sve ostalo što je potrebno od dokumentacije, a što je propisano zakonom (Caneppele et al., 2013; Checchi & Polo, 2020; Deiana & Geraci, 2021; Riccardi, 2014; Sergi & South, 2016; Sovacool, 2021; Sovacool et al., 2016). Ukoliko firma koja je u vlasništvu kriminalne organizacije dobije podsticaj ili subvenciju od državnog novca imaju čak i novu priliku da dodatno zarade kroz projekat.

Projekti izgradnje elektrana obnovljivih izvora energije u čijim se svim fazama pojavljuje kriminal veoma štete energetske sektoru, ekonomskom razvoju, okolišu i društvu te države generalno. Projekti u kojima je prisutan kriminal mogu imati nekoliko štetih posljedica. Kao prvo, vrlo se često desi da projekti za gradnju elektrana obnovljivih izvora energije koji su odobreni ne budu finalizirani. Ti projekti budu prekinuti kada više ne bude finansijskih sredstava, koja su vrlo često netransparentno potrošena. Takav je i slučaj u Bosni i Hercegovini i sa izgradnjom hidroelektrana kako navode autori (Dogmus &

Nielsen, 2020). Naime, u Bosni i Hercegovini u određenom periodu odobren je veliki broj projekata izgradnje hidroelektrana, bez samog završetka izgradnje tih hidroelektrana. Sa druge strane, u mnogim projektima koji nisu završeni primijećeno je da su ekološke studije rađene na prijeratnim podacima koji nisu relevantni za trenutnu sliku okoliša (Dogmus & Nielsen, 2020). To dovodi do druge posljedice prisutnosti kriminala u sektoru obnovljivih izvora energije, a to je uništavanje okoliša izgradnjom objekata koji nemaju dozvolu da mogu biti izgrađeni na tom terenu. Navedeno može izazvati fatalne posljedice za stanovništvo koje živi u okolnom području. Dovoljno je samo da se pokrenu klizišta koja mogu odnijeti stotine života. Također, nestabilna poslovna atmosfera može odbiti sve potencijalne investitore u sektor obnovljivih izvora energije kako strane tako i domaće. Na ovaj način se sistematski uništava ne samo sektor obnovljivih izvora energije, već kompletan energetska sektor jedne države. Slijedeća posljedica prisutnosti kriminala u sektoru obnovljivih izvora energije jeste alociranje finansijskih sredstava državnog budžeta za projekte koji služe striktno za pranje novca i kao nova prilika za bogaćenje kriminalnih grupa i državnih struktura koje bivaju podmićene od strane kriminalnih organizacija. Navedeno po svojoj prirodi predstavlja organizovani kriminal (Checchi & Polo, 2020; Gani, 2021; Sovacool, 2021; Sovacool et al., 2016).

No, pojava kriminala u sektoru OIE nije isključivo rezervisana za države u razvoju. Literatura ističe primjer Italije koja je u zadnjih 15 godina doživjela veliki procvat vjetroenergetskog sektora. Naime, (Caneppele et al., 2013; Checchi & Polo, 2020; Deiana & Geraci, 2021; Riccardi, 2014; Scandurra et al., 2024; Sergi & South, 2016) navode u svojim radovima da postoji jasna poveznica između lokacija izgradnje elektrana, te ulaganja državnih investicija u lokacije izgradnje elektrana sa lokacijama prebivališta kriminalnih organizacija. Drugim riječima, u ovim istraživanjima dokazana je direktna povezanost koja se ogledala u tome da su se ciljano gradile elektrane na onim lokacijama koje su pod

kontrolom mafijaških organizacija (Caneppele et al., 2013; Checchi & Polo, 2020; Deiana & Geraci, 2021; Money Laundering from Environmental Crime, 2021; Riccardi, 2014; Sergi & South, 2016). Ova koncentrisanost ulaganja u izgradnju vjetroelektrana u ovoj regiji je izazvala zabrinutost zbog visokog rizika infiltracije talijanskih organizovanih kriminalnih grupa koje su tradicionalno i historijski prisutne u južnoj Italiji (Cosa Nostra na Siciliji, Camorra u Kampaniji, 'Ndrangheta u Kalabriji, Apulian OC u Apuliji). Ova zabrinutost je opravdana, a i statistički brojevi govore o tome. Autori (Caneppele, Riccardi & Standridge, 2013) navode da je 2012. Godine Consiglio Nazionale Economia e Lavoro (CNEL) objavio izvještaj o problemu pristunosti kriminalnih organizacija u sektoru obnovljivih izvora energije, konkretno u energiji koja se dobija iz vjetra. U izvještaju se navodi da je za obnovljive izvore energije, tačnije za izgradnju i za projekte finansiranja izgradnje vjetroelektrana u južnim regijama Italije uloženo preko 300 milijuna eura. Ovaj iznos je otprilike dva puta viši od ulaganja koje su ostale države poput Španije, Francuske, Poljske, Grčke, Njemačke, Portugala i Velike Britanije uložile. Unatoč velikim novčanim iznosima ulaganja u sektor obnovljivih izvora energije, kapacitet proizvodnje električne energije iz obnovljivih izvora energije na svakih 1000 stanovnika Italije bio je jednak prosjeku kapaciteta Evropske unije (465,5 KW), a opet lošiji od Njemačke (565 KW), Portugala (803 KW), Španije (894,6) i Švedske (1938 KW) (Caneppele, Riccardi & Standridge, 2013). U izvještaju se navodi da je Italija dobila veći iznos novčanih sredstava od Evropske unije za proizvodnju električne energije, a krajnji rezultat proizvodnje električne energije u odnosu na druge države Evropske unije je prosječan ili čak manji. Logično je pitanje da li je zapravo novac otišao u druge svrhe, a ne u jačanje sektora obnovljivih izvora energije. U kombinaciji sa historijskom prisutnošću kriminalnih organizacija u južnim regijama Italije, postavlja se logično pitanje da li su ovim ulaganjima omogućene i povećane kriminalne aktivnosti u legalnim ekonomskim tokovima (Caneppele,

Riccardi & Standridge, 2013). Interesantna je činjenica da u usporedbi sa ostalim regijama Evropske unije, Italija ne pokazuje toliko velik vjetro-potencijal. Na primjer, najvjetrovitija regija, odnosno regija sa najećim vjetro-potencijalom u Italiji zauzima 72. mjesto na EU spisku regija. Uprkos relativno niskom potencijalu vjetra Italija je 2011. godine bila treća Evropska zemlja sa najviše izgrađenih vjetroelektrana. Rezultati studije (Caneppele, Riccardi & Standridge, 2013) potvrđuju da regije sa većom razinom vjetro-potencijala imaju veći rizik od infiltracije kriminalnih organizacija u izgradnju vjetroelektrana. Autori navode da su u skoro svim fazama procesa izgradnje vjetroeletrane zabilježene određene nepravilnosti i malverzacije (Caneppele, Riccardi & Standridge, 2013). Tačnije u fazama pripreme, odobravanja i prikupljanja sredstava, izvođenja radova izgradnje vjetroelektrana i puštanja u rad vjetroelektrana u Italiji zabilježene su nepravilnosti i odstupanja. Također, autori navode slučajeve u kojima su određene oblasti unaprijed odabrane za izgradnju vjetroelektrana (Caneppele, Riccardi & Standridge, 2013), što bi značilo da kriminalne organizacije unaprijed biraju mjesta za koja znaju da mogu dobiti za izgradnju elektrane. U sedam slučajeva su potvrđene prisutnosti mafijaških organizacija (Cosa Nostra, 'Ndrangheta, apulijski OC). Neki od krivičnih slučajeva u Italiji vezani za kriminalne aktivnosti u sektoru obnovljivih izvora energije su navedeni u nastavku. Prvi slučaj koji se u literaturi navodi jeste slučaj Flavio Carboni i Pasquale Lombardi. Ovaj slučaj je idealan primjer kako mafijaške strukture djeluju koristeći državne strukture. Prema (Gennaioli & Tavoni, 2016) Flavio Carboni i bivši italijanski političar Pasquale Lombardi su zajedno djelovali kao članovi kriminalne organizacije, te su uzimali mito od privatnih firmi koje su zauzvrat dobivale dozvole za izgradnju vjetroelektrana na državnim zemljištima. Riječ je o sprezi mafije i politike, odnosno visokih državnih službenika, te upravo ta sprega omogućava veliki uspjeh i procvat kriminalnih aktivnosti u sektoru obnovljivih izvora energije. Navedeno zapravo predstavlja organizovani

kriminal. Drugi primjer je slučaj Angelo Salvatore i Vincenzo Funari. U Italiji 2007. godine na Siciliji su uhapšeni su poznati privrednik Angelo Salvatore i Vincenzo Funari koji se dovodi u vezu sa mafijom. Dokazi protiv njih su pribavljeni prisluškivanjem od strane istražnih organa. Salvatore i Funari su više navrata dogovarali poslove u sektoru obnovljivih izvora energije. Prema sudskim dokumentima poznate kriminalne familije i privrednici bi pronašli zemljište koji je pogodno za izgradnju vjetroelektrana i solarnih elektrana (Gennaioli & Tavoni, 2016). Vršili bi pritisak na vlasnike zemljišnih parcela da im prodaju zemljišta po nižim cijenama ili da dobiju od njih dugoročni zakup. U svrhu ubrzavanja čitavog procesa angažovali su i podmićivali lokalne državne službenike. Nakon dobivanja dozvole za izgradnju na traženom zemljištu, obraćali bi se stranim investitorima koji su željeli dobiti subvencije od talijanske vlade za razvoj elektrana za vjetro-energiju. Treći slučaj u Italiji je slučaj Vito Nicastrì – “Gospodar vjetrova”. Siciljanskom biznismenu Vitu Nicastriju, također poznatom po nadimku “Gospodar vjetrova”, italijanska policija oduzela je imovinu od vrijednosti 1.5 milijardi eura. Italijanska policija u svom saopštenju navodi da je zaplijenjena imovina 43 kompanije čije je polje poslovanja dobivanje energije iz obnovljivih izvora, konkretno u industriji vjetroelektrana i solarnih elektrana. Pored kompanija zaplijenjena imovina je podrazumijevala na stotine luksuznih automobila, vila, dionica, katamarana i zamrznutih bankovnih računa. Ova operacija je vođena protiv Nicastrija, talijanskog biznismena za kojeg se sumnja da je povezan sa šefom mafijaške organizacije Matteom Messinom Denarom (Caneppele et al., 2013; Checchi & Polo, 2020; Deiana & Geraci, 2021; Riccardi, 2014; Sergi & South, 2016). Istražitelji navode da su vjetroelektrane postale u zadnje vrijeme omiljeni alat za pranje novca zarađenog od trgovine drogom, reketiranjem i drugim kriminalnim aktivnostima. Ono što autor ističe kao interesantno jeste da se zapravo rađa nova era mafijaškog djelovanja koji je veoma udaljen od tradicionalnog djelovanja talijanske mafije

(Gennaioli & Tavoni, 2016). Tvrdi da se zapravo događa tranzicija mafije na obnovljive izvore energije koje vide kao neiscrpane finansijske izvore. Također, tvrdi da širom Italije mafijaške organizacije ulažu u obnovljive izvore energije pribavljajući i unovčavajući subvencije Evropske unije i države i na taj način peru novac stečen od trgovine drogom. Dalje se navodi u članku da za relativno mali novac poduzetnici koji su u direktnoj kontroli mafijaških struktura mogu kupiti zemljišta za instaliranje elektrana, solarnih panela, vjetroelektrana ili postrojenja za bioenergiju. Navedeno im omogućava pristup velikim novčanim iznosima državnih subvencija za podsticaj razvoja električne energije iz obnovljivih izvora energije.

Jedan dio literature je fokusiran na istraživanje načina iskorištavanja sektora obnovljivih izvora energije i energetskega sektora uopšte za pranje novca i za krivična djela finansijskog kriminala, te da li su u svjetskoj praksi navedena krivična djela u energetskega sektoru kažnjavana i u kojem obimu (Ashby, 2016; Darsania & Chaladze, 2023; Donastorg et al., 2017; Endriana et al., 2023a, 2023b; Fortelny, n.d.; Money Laundering from Environmental Crime, 2021; Scandurra et al., 2024; Sergi & South, 2016; Sophia, n.d.). Organizovane kriminalne grupe pored toga što sektor obnovljivih izvora vide kao izvor sticanja novih novčanih sredstava, vide ga i kao idealnu priliku za pranje novca koji je stečen ilegalnim aktivnostima. Posredstvom krivičnih djela korupcije, davanja i primanja mita organizovane kriminalne grupe se uspijevaju nametnuti i reangirati kao najbolji ponuđači. Ovdje je već evidentno da postoji i prisustvo korupcije među vladajućim strukturama i političkim figurama što upućuje na znatno složeniji problem u društvu (Gennaioli & Tavoni, 2016; J. Lu et al., 2019; Sovacool, 2021; Williams & Jenkins, 2020).

Literatura također ističe da je najefikasniji način borbe protiv kriminala u energetskega sektoru jačanje zakonske regulative (Cardoni et al., 2020; Low et al., 2010; Öge, 2016; Williams & Jenkins, 2020). To također podrazumijeva i

jačanje sprovođenja iste zakonske regulative. Od velike je važnosti da ukoliko dođe do zloupotrebe zakona isti pojedinci ili grupa bude dosljedno procesuirana i kažnjena u skladu sa zakonom. Na primjer, ukoliko je određeni državni službenik primio mito kako bi određena firma koja ne ispunjava sve uslove dobila ugovor za izgradnju elektarne obnovljivih izvora energije, onda je u ovom slučaju su pitanju krivična djela davanje i primanje mita i vrlo često zloupotreba položaja. Ukoliko je nelegalnom izgradnjom elektarne obnovljivih izvora energije narušen okoliš, onda je u pitanju ekološki kriminal koji se kažnjava u skladu sa krivičnim zakonima. Upravo je navedeno specifičnost kriminala u sektoru obnovljivih izvora energije i razlog zbog koje je ova tema od iznimne važnosti

Zaključak

Kada je u pitanju literatura u oblasti obnovljivih izvora energije Bosne i Hercegovine, može se zaključiti da ista nije mnogobrojna. Studije koje su rađene i analize koje su vršene vezano za sektor obnovljivih izvora energije su uglavnom potaknute i finansiranje od strane međunarodnih organizacija, nevladinih organizacija i vlada drugih država. Kriminalne grupe često primenjuju slične strategije koje se zasnivaju na osnivanju privatnih firmi koje se bave legalnim poslovima u sektoru obnovljivih izvora energije, kao što su izgradnja elektrana, ulaganje u obnovljive izvore ili razvoj tehnologija potrebnih za izgradnju tih postrojenja. Ove firme su ili direktno u vlasništvu kriminalnih organizacija ili su povezane s njima kroz bliske kontakte. Pošto se firma bavi zakonitim aktivnostima, prijavljuje se na tendere koje raspisuje država za izbor izvođača u projektima izgradnje elektrana obnovljivih izvora energije. Podmićivanjem državnih zvaničnika, falsifikovanjem finansijske dokumentacije i drugih potrebnih dozvola za izgradnju energetske objekata, kriminalne grupe obezbjeđuju sigurnu pobjedu prilikom prijavljivanja na tendere. Pored toga, podmićivanjem državnih službenika ne samo da osiguravaju ugovore i stiču

dojam firme koja ispunjava sve uslove, već i ubrzavaju birokratske procese, uključujući izdavanje koncesija, dozvola za gradnju, ekoloških studija i svih drugih zakonskih obaveza. Na ovaj način organizovane kriminalne grupe imaju direktan pristup legalnim tokovima novca u koji mogu ubrizgavati vlastiti „prljavi“ novac.

Također, kada je u pitanju literatura o sektoru obnovljivih izvora Bosne i Hercegovine postoji nekoliko radova koji govore konkretno o prisustvu kriminala u Bosni i Hercegovini (Dogmus & Nielsen, 2021, 2020). Autori ukazuju na problem hidroenergetskog sektora Bosne i Hercegovine u kojem se počinju gomilati projekti bez njihove realizacije u stvarnosti. Lokalni nivoi vlasti odobravaju projekte, započinju izgradnju hidroelektrana ali projekti vrlo često ne budu finalizirani. Autori (Dogmus & Nielsen, 2020) su kroz intervju sa lokalnim stanovništvom došli do zaključka da je zapravo u pitanju prisustvo kriminala u hidroenergetskom sektoru Bosne i Hercegovine. Stanovništvo je navodilo slučajeve podmićivanja političkih ličnosti od strane lokalnih biznismena ili davanje drugog oblika dara, kao što je finansiranje političkih kampanja, a za uzvrat dobivali projekte izgradnje hidroelektrana. Autori ističu da Bosna i Hercegovina ima komplikovano političko i državno uređenje, što je opet rezultiralo komplikovanim i dugotrajnim birokratskim procedurama kojima su izloženi svi potencijalni investitori u obnovljivu energiju BiH. Također, evidentno je prisustvo korupcije u svima fazama izgradnje projekta hidroelektrana, te neefikasno upravljanje odobrenim budžetima za izgradnju elektrane.

Kako bi se podigla svijet kako naučne zajednice, tako i društva i kako bi se aktivno djelovalo na prevenciji kriminala, od velike je važnosti potaknuti naučnu zajednicu na doprinos i u ovoj oblasti. Kako se razvija svijest akademske zajednice o ovom problemu, tako se razvija i svijest u društvu uopšte, što opet dovodi do efikasnije borbe protiv kriminala u sektoru obnovljivih izvora energije.

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Methods of infiltration of organized criminal groups into legal money flows through investments in renewable energy projects

MA Inda Kreso

Abstract

The renewable energy sector (RES) has been identified in the literature as one of the most attractive sectors for organized criminal groups. This is due to the large amount of financial resources that governments allocate to support the energy transition, the complete transition to renewable energy sources, the reduction of fossil fuel use and the positive impact on climate change mitigation. Due to the large amount of financial resources invested in this sector, organized crime groups see it as an opportunity to launder money obtained through illegal activities and to generate additional profits. The aim of this paper is to investigate, through an in-depth systematic review of the available literature, the ways and methods that organized crime groups use to infiltrate legal financial flows and thus launder money.

KEY WORDS : *corruption, crime, sector of renewable energy sources, infiltration of criminal organizations*

Introduction

The area of crime in the renewable energy sector is a very complex area because it involves an interdisciplinary field that requires staff with specific education. For this reason, crime in the energy sector generally does not have a single theoretical framework or a single approach to explanation. For the same reason, crime in the renewable energy sector, both in the world and in Bosnia and Herzegovina, is not sufficiently recognized and researched as a phenomenon. Due to insufficient awareness and education of professional staff, it very often happens that criminal acts committed in renewable energy power plant construction projects and other projects in the renewable energy sector are never discovered or are discovered after a very long time. This is partly due to the lack of interest of the scientific community in this topic. The very occurrence of crime in the renewable energy sector is actually just a manifestation of another phenomenon, namely a deep-rooted problem that the state is struggling with. What is visible from the outside, namely corruption, theft, non-transparent tendering and auction processes, abuse of position, environmental destruction and ecological crime, are manifestations that can manifest themselves thanks to the lack of rule of law and high corruption, which in developing countries (but also in some economically developed countries) is generally not sanctioned adequately. Poor management of the energy sector can have very bad consequences for the country's economy, so the topic of crime prevention and prediction in the renewable energy sector in Bosnia and Herzegovina is very complex and involves continuous work by state bodies, non-governmental institutions and the academic community.

During the process of building a renewable energy power plant, criminal organizations have the opportunity to launder money gained through illegal activities. By investing in the project, in construction materials, falsifying invoices and inflating the costs of the entire construction process, a criminal

organization can launder large sums of money practically unhindered (Caneppele et al., 2013; Checchi & Polo, 2020; Deiana & Geraci, 2021; Riccardi, 2014; Sergi & South, 2016; Sovacool, 2021; Sovacool et al., 2016).

One example in the literature is the energy sector of Bosnia and Herzegovina. BiH is a country extremely rich in renewable energy potential, especially hydropower potential. It is in the hydropower sector that the largest number of initiated projects in Bosnia and Herzegovina has been recorded, which would very often remain unfinished, mainly due to a lack of financial resources (Dogmus & Nielsen, 2020). Due to their complexity, renewable energy power plant construction projects can often serve as an ideal opportunity for organized criminal groups that see a way to increase their profits illegally by investing in renewable energy sources, violating procedures and rules, and to launder money obtained through criminal activities (Caneppele et al., 2013; Checchi & Polo, 2020; Endriana et al., 2023a; Fortelny, n.d.; Riccardi, 2014). Crime in the renewable energy sector in Bosnia and Herzegovina, as well as timely prediction and prevention of crime in the renewable energy sector in Bosnia and Herzegovina, is almost not the focus of the academic community at all. A great lack of scientific research papers on the presence and manifestations of crime in the renewable energy sector has been noted, especially in relation to the literature present among foreign authors.

Methodology

In order to analyze the ways in which criminal organizations infiltrate the legal economy, an in-depth systematic literature review was conducted to analyze scientific papers on the topic of crime in the renewable energy sector. Crime in the renewable energy sector has not been a major focus of the scientific community, which has resulted in a smaller number of scientific papers on this topic. For this reason, it was necessary to use several different databases in order to collect a larger number of papers. The following databases were searched using

keywords: Google Scholar, Web Of Science and Scopus. The keywords used were: corruption, crime, renewable energy sector, infiltration of criminal organizations. The above searches resulted in the collection of 34 scientific papers on the topic of crime in the renewable energy sector.

Results

The stability of the energy sector and the continuous improvement of the entire energy sector in line with the global development of society is one of the most demanding security challenges at the global level. Specifically, when it comes to renewable energy, this challenge becomes even more complex. The idea behind the stable and continuous development of the renewable energy sector is to combat climate change at the global level, reduce dependence on fossil fuels and focus on developing a sustainable supply of electricity from renewable energy sources (Checchi & Polo, 2020; Deiana & Geraci, 2021; Di Foggia & Beccarello, 2024; Eitan et al., 2019; Hitzeroth & Megerle, 2013; Vakulchuk et al., 2020).

The complexity of the renewable energy sector is reflected in many challenges that are of a technical, financial, regulatory, political, environmental and social nature, which further complicates the processes within the renewable energy sector. One of the main challenges within the renewable energy sector is the problems of managing investments and generally financial resources flowing into this sector. Investments in the renewable energy sector are very high at the global level, as well as the accompanying infrastructure required for the integration of power plants into the current energy grid. Precisely for financial reasons, countries with less developed economies cannot follow the global trends of transition to green energy (Endriana et al., 2023a; Polzin et al., 2019; Qadir et al., 2021; Steffen, 2018). Such countries lag behind the trends of abandoning energy from fossil fuels and switching to energy from renewable sources.

In addition to financial, developing countries have a very important challenge in the development of the renewable energy sector, which is the regulatory and

political framework. Since renewable energy power plant construction projects are very complex projects, it is necessary that the legal framework governing the process of building energy facilities is high-quality and complete. In a large number of developing countries, the legal framework regulating the renewable energy sector has not yet been fully adapted to support the rapid introduction of renewable energy sources. On the other hand, politics plays a major role in renewable energy power plant construction projects (Jiang & Martek, 2021; Lawrence et al., 1997; Y. Lu et al., 2020). If there is an evident lack of incentives and clear policies led by the governing structures, then such a business atmosphere can repel potential investors and thus make it difficult to develop the renewable energy sector.

In such societies, a side effect often develops, which is the presence of crime in the renewable energy sector. Crime in renewable energy power plant construction projects occurs not only in developing countries, but also in countries with highly developed economies such as Italy, Spain, the Netherlands and others. The above indicates that the occurrence of crime in the renewable energy sector is a security issue that needs to be addressed, and intensive work should be done to develop models and methods to minimize the occurrence of crime in renewable energy power plant construction projects, and in the entire energy sector in general. Organized crime groups see an ideal opportunity to use the renewable energy sector through a series of criminal acts to make additional profits and launder money acquired illegally. It is precisely because of the intensive investment in the renewable energy sector that organized crime groups can easily access a large source of financial resources, mainly by bribing government officials and political structures. Criminal groups generally have the same or similar approaches, which are based on the formation of a private company that is engaged in the essentially legal business of building renewable energy power plants, investing in the renewable energy sector or developing various

technologies needed to build a renewable energy power plant (Caneppele et al., 2013; Checchi & Polo, 2020; Deiana & Geraci, 2021; Riccardi, 2014; Sergi & South, 2016; Sovacool, 2021; Sovacool et al., 2016). The company is owned by the criminal organization itself or by a person close to the criminal organization. Since the company is engaged in legal business, it competes in tenders organized by the state for the purpose of selecting the signatory to the contract for the construction of a renewable energy power plant. Criminal organizations ensure the acquisition of the project in various ways, mainly by bribing government officials, falsifying financial documents and other permits required for the construction of energy facilities. On the other hand, by bribing government officials, they not only manage to obtain the contract and be presented as a company that meets all the requirements, but also manage to speed up all other bureaucratic processes, such as concessions, necessary building permits, environmental studies, feasibility studies and everything else that is required from the documentation, which is prescribed by law (Caneppele et al., 2013; Checchi & Polo, 2020; Deiana & Geraci, 2021; Riccardi, 2014; Sergi & South, 2016; Sovacool, 2021; Sovacool et al., 2016). If a company owned by a criminal organization receives an incentive or subsidy from government money, they even have a new opportunity to earn additional income through the project.

Projects for the construction of renewable energy power plants, in all phases of which crime occurs, are very damaging to the energy sector, economic development, the environment and society of the country in general. Projects in which crime is present can have several harmful consequences. First of all, it very often happens that projects for the construction of renewable energy power plants that have been approved are not finalized. These projects are terminated when there are no more financial resources, which are very often spent in a non-transparent manner. This is also the case in Bosnia and Herzegovina and with the construction of hydroelectric power plants, as the authors state (Dogmus &

Nielsen, 2020). Namely, in Bosnia and Herzegovina, a large number of hydroelectric power plant construction projects were approved in a certain period, without the construction of these hydroelectric power plants being completed. On the other hand, in many projects that have not been completed, it has been noted that environmental studies were carried out on pre-war data that are not relevant to the current environmental situation (Dogmus & Nielsen, 2020). This leads to another consequence of the presence of crime in the renewable energy sector, which is the destruction of the environment by the construction of facilities that do not have a permit to be built on that terrain. The above can cause fatal consequences for the population living in the surrounding area. It is enough to trigger landslides that can take hundreds of lives. Also, an unstable business atmosphere can repel all potential investors in the renewable energy sector, both foreign and domestic. In this way, not only the renewable energy sector, but the entire energy sector of a country is systematically destroyed. Another consequence of the presence of crime in the renewable energy sector is the allocation of state budget funds for projects that serve strictly for money laundering and as a new opportunity for the enrichment of criminal groups and state structures that are bribed by criminal organizations. The above is by its nature organized crime (Checchi & Polo, 2020; Gani, 2021; Sovacool, 2021; Sovacool et al., 2016).

However, the emergence of crime in the RES sector is not exclusively reserved for developing countries. The literature highlights the example of Italy, which has experienced a major boom in the wind energy sector in the last 15 years. Namely, (Caneppele et al., 2013; Checchi & Polo, 2020; Deiana & Geraci, 2021; Riccardi, 2014; Scandurra et al., 2024; Sergi & South, 2016) state in their works that there is a clear link between the locations of power plant construction, and state investments in power plant construction sites, with the locations of residence of criminal organizations. In other words, these studies have proven a direct

connection, which was reflected in the fact that power plants were purposefully built in those locations that are under the control of mafia organizations (Caneppele et al., 2013; Checchi & Polo, 2020; Deiana & Geraci, 2021; Money Laundering from Environmental Crime, 2021; Riccardi, 2014; Sergi & South, 2016). This concentration of investment in the construction of wind farms in this region has raised concerns about the high risk of infiltration by Italian organized crime groups that are traditionally and historically present in southern Italy (Cosa Nostra in Sicily, Camorra in Campania, 'Ndrangheta in Calabria, Apulian OC in Apulia). This concern is justified, and statistical numbers also speak for themselves. The authors (Caneppele, Riccardi & Standridge, 2013) state that in 2012, the Consiglio Nazionale Economia e Lavoro (CNEL) published a report on the problem of the presence of criminal organizations in the renewable energy sector, specifically in wind energy. The report states that over 300 million euros have been invested in renewable energy sources, specifically in the construction and financing of wind farm construction projects in the southern regions of Italy. This amount is approximately twice as high as the investments made by other countries such as Spain, France, Poland, Greece, Germany, Portugal and the United Kingdom. Despite the large amounts of money invested in the renewable energy sector, Italy's renewable electricity production capacity per 1,000 inhabitants was equal to the average capacity of the European Union (465.5 KW), and still worse than Germany (565 KW), Portugal (803 KW), Spain (894.6) and Sweden (1,938 KW) (Caneppele, Riccardi & Standridge, 2013). The report states that Italy received a larger amount of money from the European Union for electricity production, and the final result of electricity production compared to other European Union countries is average or even lower. The logical question is whether the money was actually spent for other purposes, and not on strengthening the renewable energy sector. Combined with the historical presence of criminal organizations in the southern regions of Italy, a logical question arises

whether these investments have also enabled increased criminal activities in legal economic flows (Caneppele, Riccardi & Standridge, 2013). An interesting fact is that compared to other regions of the European Union, Italy does not show such a high wind potential. For example, the windiest region, i.e. the region with the highest wind potential in Italy, ranks 72nd on the EU list of regions. Despite the relatively low wind potential, Italy was the third European country with the most built wind farms in 2011. The results of the study (Caneppele, Riccardi & Standridge, 2013) confirm that regions with a higher level of wind potential have a higher risk of infiltration by criminal organizations into the construction of wind farms. The authors state that certain irregularities and malpractices have been recorded in almost all phases of the wind farm construction process (Caneppele, Riccardi & Standridge, 2013). More precisely, irregularities and deviations have been recorded in the phases of preparation, approval and fundraising, execution of wind farm construction works and commissioning of wind farms in Italy. The authors also mention cases in which certain areas were pre-selected for the construction of wind farms (Caneppele, Riccardi & Standridge, 2013), which would mean that criminal organizations pre-select places that they know they can get for the construction of the power plant. In seven cases, the presence of mafia organizations (Cosa Nostra, 'Ndrangheta, Apulian OC) was confirmed. Some of the criminal cases in Italy related to criminal activities in the renewable energy sector are listed below. The first case cited in the literature is the case of Flavio Carboni and Pasquale Lombardi. This case is an ideal example of how mafia structures operate using state structures. According to (Gennaioli & Tavoni, 2016), Flavio Carboni and former Italian politician Pasquale Lombardi acted together as members of a criminal organization, taking bribes from private companies that in turn received permits to build wind farms on state land. This is a connection between the mafia and politics, or high-ranking civil servants, and it is precisely this connection that enables great success and the flourishing of

criminal activities in the renewable energy sector. This actually represents organized crime. Another example is the case of Angelo Salvatore and Vincenzo Funari. In Italy, in 2007, well-known businessmen Angelo Salvatore and Vincenzo Funari, who are linked to the mafia, were arrested in Sicily. Evidence against them was obtained through wiretapping by investigative authorities. Salvatore and Funari repeatedly arranged deals in the renewable energy sector. According to court documents, well-known crime families and businessmen would find land suitable for the construction of wind farms and solar power plants (Gennaioli & Tavoni, 2016). They would pressure landowners to sell them land at lower prices or to obtain long-term leases from them. In order to speed up the process, they would hire and bribe local civil servants. After obtaining permission to build on the requested land, they would approach foreign investors who wanted to receive subsidies from the Italian government for the development of wind power plants. The third case in Italy is the case of Vito Nicastrì – “Lord of the Winds”. Sicilian businessman Vito Nicastrì, also known by his nickname “Lord of the Winds”, was seized by Italian police with assets worth 1.5 billion euros. Italian police said in a statement that the assets of 43 companies whose business is the production of energy from renewable sources, specifically in the wind and solar power industries, were seized. In addition to the companies, the seized assets included hundreds of luxury cars, villas, shares, catamarans and frozen bank accounts. This operation was conducted against Nicastrì, an Italian businessman suspected of being linked to the head of the mafia organization Matteo Messina Denaro (Caneppele et al., 2013; Checchi & Polo, 2020; Deiana & Geraci, 2021; Riccardi, 2014; Sergi & South, 2016). Investigators state that wind farms have recently become a favorite tool for laundering money earned from drug trafficking, racketeering and other criminal activities. What the author highlights as interesting is that a new era of mafia activity is actually being born that is very far from the traditional activities of the Italian mafia (Gennaioli &

Tavoni, 2016). They claim that the mafia is actually transitioning to renewable energy sources, which they see as inexhaustible financial sources. They also claim that throughout Italy, mafia organizations are investing in renewable energy sources by obtaining and cashing in subsidies from the European Union and the state, and in this way launder money obtained from drug trafficking. The article further states that for relatively little money, entrepreneurs who are in direct control of mafia structures can buy land for the installation of power plants, solar panels, wind farms or bioenergy plants. This allows them access to large amounts of government subsidies to encourage the development of electricity from renewable energy sources.

One part of the literature focuses on researching the ways in which the renewable energy sector and the energy sector in general are exploited for money laundering and financial crime, and whether the aforementioned crimes in the energy sector have been punished in world practice and to what extent (Ashby, 2016; Darsania & Chaladze, 2023; Donastorg et al., 2017; Endriana et al., 2023a, 2023b; Fortelny, n.d.; Money Laundering from Environmental Crime, 2021; Scandurra et al., 2024; Sergi & South, 2016; Sophia, n.d.). Organized crime groups, in addition to seeing the renewable energy sector as a source of new financial resources, also see it as an ideal opportunity to launder money obtained through illegal activities. Through corruption, bribery, and bribery, organized crime groups manage to impose themselves and reposition themselves as the best bidders. It is already evident here that there is also the presence of corruption among governing structures and political figures, which indicates a much more complex problem in society. (Gennaioli & Tavoni, 2016; J. Lu et al., 2019; Sovacool, 2021; Williams & Jenkins, 2020).

The literature also points out that the most effective way to combat crime in the energy sector is to strengthen the legal framework (Cardoni et al., 2020; Low et al., 2010; Öge, 2016; Williams & Jenkins, 2020). This also implies strengthening

the implementation of the same legal framework. It is of great importance that if there is abuse of the law, the same individuals or groups are consistently prosecuted and punished in accordance with the law. For example, if a certain civil servant accepted a bribe so that a certain company that does not meet all the requirements was awarded a contract to build a renewable energy power plant, then in this case the criminal offenses are giving and receiving bribes and very often abuse of position. If the illegal construction of a renewable energy power plant damages the environment, then it is an environmental crime that is punished in accordance with criminal laws. The specificity of crime in the renewable energy sector has been stated precisely and the reason why this topic is of exceptional importance

Conclusion

When it comes to the literature on renewable energy sources in Bosnia and Herzegovina, it can be concluded that it is not numerous. The studies that have been done and the analyses that have been carried out regarding the renewable energy sector have been mainly encouraged and financed by international organizations, non-governmental organizations and governments of other countries. Criminal groups often apply similar strategies based on the establishment of private companies that engage in legal activities in the renewable energy sector, such as the construction of power plants, investment in renewable sources or the development of technologies needed to build these facilities. These companies are either directly owned by criminal organizations or are connected to them through close contacts. Since the company is engaged in legal activities, it applies for tenders announced by the state for the selection of contractors in renewable energy power plant construction projects. By bribing state officials, falsifying financial documents and other necessary permits for the construction of energy facilities, criminal groups ensure a sure victory when

applying for tenders. In addition, bribing government officials not only secures contracts and gives the impression of a company that meets all requirements, but also speeds up bureaucratic processes, including the issuance of concessions, building permits, environmental studies and all other legal obligations. In this way, organized crime groups have direct access to legal money flows into which they can inject their own "dirty" money.

Also, when it comes to the literature on the renewable energy sector in Bosnia and Herzegovina, there are several works that specifically address the presence of crime in Bosnia and Herzegovina. (Dogmus & Nielsen, 2021, 2020). The authors point to the problem of the hydropower sector in Bosnia and Herzegovina, in which projects are starting to pile up without their implementation in reality. Local levels of government approve projects, start the construction of hydroelectric power plants, but the projects are very often not finalized. The authors (Dogmus & Nielsen, 2020) came to the conclusion through interviews with local residents that there is actually a presence of crime in the hydropower sector in Bosnia and Herzegovina. The population cited cases of bribery of political figures by local businessmen or giving other forms of gifts, such as financing political campaigns, and in return receiving hydroelectric power plant construction projects. The authors point out that Bosnia and Herzegovina has a complicated political and state system, which in turn has resulted in complicated and lengthy bureaucratic procedures to which all potential investors in renewable energy in BiH are exposed. Also, the presence of corruption is evident in all phases of the construction of hydroelectric power plants, and inefficient management of approved budgets for the construction of power plants.

In order to raise the profile of both the scientific community and society and to actively work on crime prevention, it is of great importance to encourage the scientific community to contribute in this area as well. As the awareness of the

academic community about this problem develops, so does awareness in society at large, which in turn leads to a more efficient fight against crime in the renewable energy sector.

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