

RĪGAS TEHNISKĀ UNIVERSITĀTE

Inženierekonomikas un vadības fakultāte

Būvuzņēmējdarbības un nekustamā īpašuma ekonomikas institūts

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Doktora studiju programmas “Vadībzinātne un ekonomika” doktorants

VIETĒJĀS KOPIENAS POTENCIĀLA IZMANTOŠANAS IESPĒJAS LATVIJAS ILGTSPĒJĪGAS REĢIONĀLĀS ATTĪSTĪBAS NODROŠINĀŠANAI

Promocijas darbs

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RTU Izdevniecība

Rīga 2023

Pudzis, E. Vietējās kopienas potenciāla izmantošanas iespējas Latvijas ilgtspējīgas reģionālās attīstības nodrošināšanai. Promocijas darbs. Rīga: RTU Izdevniecība, 2023. 176 lpp.

Iespiests saskaņā ar Promocijas padomes "RTU P-09" 2023.gada 27.jūnija lēmumu, protokols Nr.04030-9.9.2-e/8.

PROMOCIJAS DARBS IZVIRZĪTS ZINĀTNES DOKTORA GRĀDA IEGŪŠANAI RĪGAS TEHNISKAJĀ UNIVERSITĀTĒ

Promocijas darbs zinātnes doktora (*Ph. D.*) grāda iegūšanai tiek publiski aizstāvēts 2023. gada 1. decembrī plkst. 12:00 Rīgas Tehniskās universitātes Inženierekonomikas un vadības fakultātē, Kalnciema ielā 6, 209. auditorijā.

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APSTIPRINĀJUMS

Apstiprinu, ka esmu izstrādājis šo promocijas darbu, kas iesniegts izskatīšanai Rīgas Tehniskajā universitātē zinātnes doktora (*Ph. D.*) grāda iegūšanai. Promocijas darbs zinātniskā grāda iegūšanai nav iesniegts nevienā citā universitātē.

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Datums:

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PATEICĪBAS

konstruktīvu kritiku, lai pētāmā ideja būtu pēc iespējas piemērotāka Latvijas ilgtspējīgai reģionālajai attīstībai un vietējo kopienu pilnvērtīgai iesaistei! Īpašs paldies Eiropas Savienības (ES) *Interreg* Centrālārijas jūras reģiona pārrobežu sadarbības programmas finansētā projekta “*Coast4us*” partneriem no Latvijas, Igaunijas, Zviedrijas un Somijas, kā arī kolēģiem no Tallinas Tehnoloģiju universitātes un Linčēpingas Universitātes, kuri sniedza neatsveramu pieredzi, daloties labajās praksēs, datos un zināšanās.

Paldies darba zinātniskajām vadītājām profesorei I. Geipelei un asociētajai profesorei S. Lapuķei par atbalstu un padomu, kā arī vienmēr pozitīvo motivāciju!

Noslēgumā – paldies Rīgas Tehniskās universitātes Inženierekonomikas un vadības fakultātes un doktorantūras programmas “Vadībzinātne un ekonomika” vadībai par atbalstu un inovatīvo pieeju promocijas darba izstrādāšanā vienotas rakstu kopas formātā!

Edgars Pudzis

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DARBA VISPĀRĒJS RAKSTUROJUMS

Globalizācijas laikmetā un iedzīvotāju sastāva/dzīvesveida pārmaiņu laikā valsts reģionālo attīstību ietekmē vairāki faktori, kas tieši un netieši skar arī vietējo teritoriālo kopienu turpmākās pastāvēšanas/attīstības iespējas Tajā pašā laikā reģionālajai ekonomiskajai attīstībai kopējā valsts ekonomikas attīstībā arī ir ļoti liela nozīme. Latvijā ir identificēta būtiska problēma – jaunākās iedzīvotāju paaudzes strauja iekšējā migrācija uz atsevišķiem punktiem Latvijā, kā arī emigrācija uz citām valstīm, kas vidējā termiņā un ilgtermiņā izraisa reģionālās ekonomikas attīstības negatīvas izmaiņas. Problēmai piemīt arī sociāls raksturs, jo nelīdzsvarota reģionu ekonomiskā attīstība ir pamats dzīves kvalitātes un sabiedrības aktivitātes kritumam. Lai risinātu šīs problēmas, ir jāmeklē jauni un moderni risinājumi vietējo kopienu attīstībai un iesaistei reģionālajā attīstībā (gan ekonomiskā, gan sociālā), lai nodrošinātu sabiedrības augošo vēlmi iesaistīties un uzņemties atbildību par savu kopienas un dzīvesvietu.

Pētījuma aktualitāte

Eiropā arvien vairāk uzmanības tiek pievērsts jaunai teritoriju attīstības pieejai jeb plānošanas virzienam “no apakšas uz augšu”, kas nozīmē, ka aizvien vairāk vietas attīstības lēmumiem ir jābūt pieņemtiem pēc iespējas zemākā plānošanas līmenī – ciema līmenī, tai skaitā vietējās kopienās. Ciemu attīstības plānošana kļūst par līdzekli spēcīgu vietējo kopienu veidošanai, veicinot efektīvu ekonomisko un sociālo resursu izmantošanu pēc iespējas tuvāk iedzīvotājam. Ņemot vērā to, ka Latvijas sabiedrība vēsturisku aspektu dēļ nav pieradusi pieņemt lēmumus un uzņemties atbildību par pašu pieņemto lēmumu izpildi, Latvijā ir vērojama vietējā potenciāla neefektīva izmantošana. Kā būtisks aspekts vietējo kopienu vājamajai attīstībai reģionos minama arī demogrāfiskā situācija, cilvēku dzīvesveida un paradumu maiņa. Tas nozīmē, ka stagnējošas sabiedrības apstākļos, iedzīvotājiem neredzot iespēju savu potenciālu izmantot vietējā kopienā, notiek plaša reģiona cilvēkkapitāla (arī zināšanu kapitāla) migrācija valsts iekšienē uz atsevišķiem attīstības punktiem, kā arī emigrācija no valsts, it īpaši jaunu cilvēku vidū, kuri patiesībā varētu būt vietējo kopienu attīstības virzītājspēks.

Šādas situācijas rezultātā notiek Latvijas reģionu nelīdzsvarota attīstība, ko savos plānošanas dokumentos identificējušas gan vietējās pašvaldības, gan arī centrālā valdība. Patlaban aizvien vairāk investīciju tiek ieguldīts reģionālajā attīstībā – gan valsts budžeta, gan pašvaldību budžeta līdzekļi, gan arī ārējie finanšu resursi (tai skaitā ES fondu līdzekļi). Vienlaikus pastāv bažas, vai “no apakšas uz augšu” plānošanas pieeja un centrālās valdības vadītā investīciju politika spēs nodrošināt efektīvu vietas ekonomiskā potenciāla attīstību, kas tieši ietekmētu arī reģionu ekonomiskās un sociālās dimensijas attīstību.

Iepriekš norādīto apstākļu un apsvērumu dēļ promocijas darbā autors pēta gan teorētiskos, gan praktiskos aspektus kopienu un vietu ilgtspējīgā attīstībā, lai radītu priekšlikumus reģionālās attīstības veicināšanai, iesaistot vietējās kopienas un efektīvi izmantojot to kapitālu.

Zinātniskā hipotēze un mērķis

Pētījuma **hipotēze** – ciemu attīstības plānošana kā jauns teritoriju attīstības plānošanas līmenis spēj nodrošināt integrētu, ilgtspējīgu un vietējo sabiedrību iesaistošu ciema attīstību reģionālās attīstības kontekstā.

Pētījuma **mērķis** – izstrādāt integrētu, ilgtspējīgu un vietējo sabiedrību iesaistošu plānošanas modeli kā jaunu attīstības plānošanas rīku ciema līmenī.

Darba **uzdevumi**, kas izriet no pētījuma mērķa

1. Izpētīt ciemu attīstības un vietējās kopienas darbības teorētiskos un normatīvos aspektus.
2. Izpētīt sabiedrības iesaistes un vietas attīstības plānošanas metodes un pieejas Baltijas jūras reģionā.
3. Izpētīt vietas ekonomikas un sociālā potenciāla aspektus un to integrēšanas iespējas kopējā ciema plānošanas modelī.
4. Izstrādāt sabiedrību iesaistošu ciema plānošanas modeļa priekšlikumu un novērtēt tā ietekmi uz ilgtspējīgu reģionālo attīstību.
5. Sagatavot priekšlikumus tālākām iespējām ciema plānošanas līmeņa ieviešanai reģionālās attīstības plānošanā.

Pētījuma **objekts** – Latvijas reģionālās attīstības plānošana un vietas attīstība.

Pētījuma **priekšmets** – ciema plānošana kā iespējamais Latvijas reģionālās attīstības plānošanas līmenis un vietējās kopienas iesaiste tajā.

Pētījuma veikšanas vieta – Baltijas jūras reģions (Latvija, Igaunija, Somija (Ålandu salas), Zviedrija).

Promocijas **darba jautājums** – vai Latvijā spēkā esošā attīstības plānošanas sistēma nodrošina ilgtspējīgu un efektīvu ekonomisko un sociālo resursu izmantošanu pēc iespējas tuvāk iedzīvotājam, tai skaitā stiprinot vietējās kopienas un to atbildību par savu dzīves telpu.

Pētījuma metodes un posmi

Promocijas darba teorētisko un metodoloģisko pamatu veido Latvijā un ārvalstīs publicētā vispārējā un zinātniskā literatūra par reģionālo attīstību un vietējām kopienām, zinātniskie raksti, datubāzes, nozares pētījumi, Latvijas Republikas Centrālās statistikas pārvaldes dati, Latvijas Republikas normatīvie akti, interneta resursi, kā arī darba autora veikto zinātnisko darbu un pētījumu analīze un secinājumi.

Pētījumā kā būtisks ieguldījums jāizceļ jaunās zināšanas un iegūtā pieredze ES *Interreg* Centrālālbaltijas jūras reģiona pārrobežu sadarbības programmas finansētā projektā “Coast4us” (Nr. CB627, https://www.rtu.lv/lv/universitate/projekti/atvert?project_number=3505), kura sākotnējo konceptu un metodoloģiju izstrādāja šī pētījuma autors.

Pētījuma izstrādes procesā izmantotas vispārpieņemtās kvalitatīvās metodes – analīzes un sintēzes, indukcijas un dedukcijas, loģiski konstruktīvās, grafiskās, vēsturiskās pieejas metodes, informācijas analīzes un apkopošanas, salīdzināšanas, kā arī kvantitatīvās metodes – statistikas apkopošanas un analīzes un datu grupēšanas. Pētījumā izmantotas arī socioloģisko pētījumu kvantitatīvās metodes – nereaktīvā metode (dokumentu analīze un tiesiskā regulējuma izpēte), aptaujas, anketēšanas, fokusgrupas metode. Metodes ir izvēlētas atbilstoši pētījuma virzienam – telpiskās attīstības plānošanai, kas ir sociālās ģeogrāfijas forma.

Pētījuma posmi:

1. Teorētiskā un normatīvo aktu izpēte, identificējot ciema un kopienas pastāvēšanas un attīstības aspektus.
2. Sabiedrības iesaistes un ciemu plānošanas izpēte dabā un starptautiskas pieredzes izpēte, identificējot labās prakses piemērus un to izmantošanas iespējas Latvijā.
3. Ekonomiskās un sociālās attīstības faktoru identificēšana, lai nodrošinātu ilgtspējīgu un visaptverošu plānošanas modeļa izstrādi.
4. Iegūto datu apkopošana, analīze un secinājumu definēšana, sniedzot priekšlikumu kopienas līmeņa teritorijas ilgtspējīgas attīstības plānošanas modelim.
5. Ciema plānu izstrādes un kopienas attīstības izmaiņu novērošana pēc ieviešanas izmēģinājuma.

Pētījumā izmantoto galveno jēdzienu normatīvā bāze

✓ **Ilgtspējīga attīstība** (Vides aizsardzības un reģionālās attīstības ministrija, 2008); jēdziens definēts Apvienoto Nāciju Organizācijas Pasaules Vides un attīstības komisijas ziņojumā "Mūsu kopējā nākotne" (saukts arī par Bruntlandes komisijas ziņojumu, 1987) un starptautiski plaši tiek lietots kopš 1992. gada Apvienoto Nāciju Organizācijas konferences Riodežaneiro "Vide un attīstība". Ilgtspējīga attīstība tiek skaidrota kā "attīstība, kas nodrošina šodienas vajadzību apmierināšanu, neradot draudus nākamo paaudžu vajadzību apmierināšanai". Ilgtspējīgu attīstību raksturo trīs savstarpēji saistītas dimensijas: vides; ekonomiskā; sociālā. Tas nozīmē, ka stingras vides aizsardzības prasības un augsti ekonomiskie rādītāji nav pretrunā ar to, ka ekonomiskā augšupeja nedrīkst degradēt vidi un vienlaikus tiek nodrošināta augsta dzīves kvalitāte;

✓ **līdzsvarota attīstība** (Latvijas Republikas Saeima, 2008); attīstība plānota, sabalansējot atsevišķu teritoriju attīstības līmeņus un tempus;

✓ **teritoriālā kohēzija** (Eiropas Komisija, 2008); tās uzdevums ir panākt harmonisku attīstību visās apdzīvotās teritorijās un nodrošināt, ka iedzīvotāji var optimāli izmantot attiecīgo teritoriju resursus; kohēzija ir instruments, ar kura palīdzību, izmantojot teritoriālās daudzveidības priekšrocības, var panākt ilgtspējīgu attīstību.

Teritoriālā kohēzija, ilgtspējīga un līdzsvarota attīstība tiek plānota reģionālā un vietējā līmenī, kā arī tiek izteikts viedoklis, ka teritorijas attīstības plānošanas dokumenti ir jāveido, ņemot vērā konkrētās teritorijas priekšrocības – tās fizisko, cilvēku un sociālo kapitālu un dabas resursus.

Ņemot vērā iepriekš minēto, secināms, ka ciema attīstības plāna saturā ir jābūt izvērtētām un iekļautām vismaz trīs ilgtspējīgas attīstības prioritātēm – vide, ekonomika un sociālie jautājumi, kā arī jāizvērtē pēc iespējas plašākās vietējās sabiedrības grupu intereses, lai veicinātu sabalansētu vietējo attīstību.

Papildus iepriekš minētajiem principiem jāņem vērā arī Latvijas vidējā termiņā un ilgtermiņā izvirzīto vienu no galvenajām attīstības prioritātēm – ekonomiskās aktivitātes veicināšanu. Līdz ar to kvalitatīvas vietējās attīstības nodrošināšanas nolūkos ir padziļināti jāpēta ekonomikas izaugsmes iespējas. Pētījuma autors ir izvēlējis padziļināti izpētīt Jaunās ekonomikas augsmes teoriju.

Pētījumā izmantotais teorētiskais pamats

Jaunā ekonomikas augsmes teorija (*New growth theory*)

Jau 20. gadsimta 70. gados ekonomikas teorijās tiek mēģināts ieviest nozīmīgu faktoru – cilvēkresursus, vēlākos gados tiek ieviests faktors – pētniecība un attīstība (*Research and Development*) (*Audretsch, Keilbach, Lehmann, 2006*). Ilgus gadus novecojušās ekonomikas teorijas pielāgojās reālajām tirgus situācijām. Galvenais faktors, kas bija jāsaprot uzņēmējiem, ir tas, ka ekonomikas attīstība ir viņu rokās – viņiem pieder fiziskais kapitāls, bet, galvenais, viņiem pieder zināšanas un cilvēkresursi.

Jaunās ekonomikas augsmes teorijas pamatā ir doma par to, ka **katrai valstij vai reģionam ir jāmeklē savs tehnoloģiskās attīstības ceļš**. Jaunā ekonomikas augsmes teorija ir viena no pirmajām endogēnās izaugsmes teorijām. Ir jāasniedz konkrētajam vides, dabas un cilvēkresursu zināšanu līmenim atbilstošs tehnoloģiskais progress, jo citu reģionu tehnoloģiju pielāgošana nozīmē vecu, jau izmantotu ideju atkārtošanos, bet mūsdienu pircēju interesē tikai inovatīvi, efektīvi un pēc iespējas lētāki produkti vai pakalpojumi. Tomēr šādu rezultātu var sasniegt tikai ar jaunu ideju, tehnoloģiju un efektīvu materiālu izlietojumu un cilvēkresursu vadību.

Jaunās ekonomiskās augsmes teorijas pamatā ir zināšanās bāzēta ekonomika, kurā galvenais resurss ir cilvēks, kas ir labi apmācīts, gatavs apgūt jaunas zināšanas, kā arī paust pašiniciatīvu un gatavs dalīties ar inovatīvām idejām (*Audretsch, Keilbach, Lehmann, 2006*). Saskaņā ar iepriekš minēto var secināt, ka īpaši svarīga zināšanās pamatota ekonomika ir mazajos un vidējos uzņēmumos, jo tiem ir nepieciešams paaugstināt darbības efektivitāti, lai tie spētu attīstīties un funkcionēt. Saistībā ar šo teoriju valsts atbalsta mazos un vidējos uzņēmumus, jo tie nespēj saviem spēkiem ieviest jaunas tehnoloģijas, bet parasti šai uzņēmumu klasei ir daudz inovatīvu un jaunu risinājumu, kas vēlāk, īstenojot politiku, valstij nesīs daudz lielākus ienākumus nekā sākotnēji ieguldītie līdzekļi.

Ilgspējīgas attīstības dimensijas

Darba autors pētījumā izmanto G. M. Mudakumuras izstrādāto un apobēto ilgspējības modeli. G. M. Mudakumura savā pētījumā "*Toward a General Theory of Sustainability*" (*Mudacummura, Mebratu, Haque, 2006*) ir identificējis sešas ilgspējības dimensijas. Izpētot dažādas ekonomiskās teorijas, autors secina, ka nepastāv vienotas ilgspējīgas attīstības formulas. Lai risinātu problēmu, autors savā pētījumā izmanto sešas dimensijas, kas kopumā veido ilgspējības principu.

✓ **Ekonomikas dimensija** kā dinamisks strukturālo pārmaiņu process, kurā tiek saglabātas kultūras vērtības un cilvēku pašcieņa, vienlaikus pētot to savstarpējās saistības, kas vērstas, lai uzlabotu iedzīvotāju ekonomisko labklājību (3. un 4. nod.).

✓ **Sociālā dimensija**. Ikvienam indivīdam ir iespēja piedalīties lēmumu pieņemšanas procesā, tādā veidā uzņemoties atbildību par lēmumu ietekmi ne tikai šai, bet arī nākamajām paaudzēm (2. nod.).

✓ **Politiskā dimensija**. Politikājiem ir jāveido sadarbības un uzraudzības sistēma, kur privātā un publisko attiecību ietvarā tiek pieņemti kopīgi un atbildīgi ilgspējīgas attīstības lēmumi (2. nod.).

✓ **Kultūras dimensija**. Sistēma, kurā viena reģiona iedzīvotāji apzinās savas kopējās vērtības, zināšanas un prasmes, kas veicina kopīgu un saliedētu virzību uz kopēju mērķi (3. nod.).

✓ **Ekoloģiskā dimensija**. Pieņemot ilgspējīgus lēmumus, ir jāņem vērā nepieciešamība saglabāt dabas un kultūras mantojumu nākamajām paaudzēm, lai nodrošinātu to labklājību (3. nod.).

✓ **Garīgā dimensija.** Tiek pieņemts, ka persona atrodas notikumu centrā, ap kuru tiek būvēta attīstība globālā līmenī (2. nod.).

G. M. Mudakumuras izstrādātā modeļa ietvaros citos ilgtspējas modeļos atsevišķi izdalīties elementi – tehnoloģiskā dimensija un vides dimensija ir attiecīgi integrētas ekonomiskajā dimensijā un ekoloģiskajā dimensijā.

Pētījums veikts no 2016. gada rudens līdz 2021. gadam.

Ar jēdzienu “**vietas ekonomika vai vietas attīstība**” pētījumā saprotama vietējos resursos, vajadzībās un pašiniciatīvās balstīta un iekļaujoša konkrētas teritorijas (ciema) ilgtspējīga un visaptveroša attīstība. Savukārt **ciems** ir mazākā plānojamā teritoriālā vienība, kurai ir noteiktas robežas un kurā dzīvo vietējā kopiena. Ciemi veido nākamo plānošanas līmeni – pašvaldību, pašvaldības veido reģionus, kas veido valsti kopumā. **Vietējā kopiena** ir vietējo iedzīvotāju grupa, kas iesaistās savas dzīves telpas ilgtspējīgā attīstībā.

Pētījums veikts par Baltijas jūras reģiona valstīm – Latvija, Igaunija, Somija (Ālandu salas) un Zviedrija.

Pētījums izstrādāts, ņemot vērā ES *Interreg* Centrālbaltijas jūras reģiona pārrobežu sadarbības programmas finansētā projekta “Coast4us” sasniegtos rezultātus un pētniecības atziņas.

Pētījums aptver Baltijas jūras piekrastes teritoriju attīstību, tai skaitā Latvijas piekrastes ciemu un kopienu attīstību. No ekonomiskās attīstības aspekta lielākā vērība ir pievērsta Baltijas jūras ietekmei uz kopienas darbības teritorijas attīstību.

Šī pētījuma laikā pasauli pārņēma *Covid-19* pandēmija, tādēļ lielākā daļa praktisko novērojumu par ciemu plānošanas līmeņa ieviešanu un kopienu izmaiņām ir veikta attālināti vai dokumentāli, jo tikšanās klātienē nebija iespējama. Tai pat laikā pandēmija radīja jaunu pētījuma virzienu – spēcīgas kopienas priekšrocību novērtējumu globālas pandēmijas apstākļos.

Ciema attīstības plānošanas process neietver zemes pārvaldības elementus, jo normatīvie akti jau paredz citus instrumentus zemes plānošanai – lokālplānojumu. Respektīvi, ja ciema attīstības plānošanas procesā rodas vajadzība mainīt zemes izmantošanas mērķus, to iespējams paveikt ar citiem instrumentiem, kas šajā pētījumā netiek apskatīti.

Pēc pētījuma pabeigšanas tika pieņemts jaunais Pašvaldību likums, tā 59. pants paredz līdzdalības budžeta ieviešanu pašvaldībās, tai skaitā atstāj pašvaldības kompetencē noteikt plānošanas vienību (teritoriju), kas var būt arī ciems. Pēc pētījuma pabeigšanas tika sākta vietējās sabiedrības virzītu vietējās attīstības stratēģiju izstrāde 2021.–2027. gadam, kas kalpo kā instrumenti izstrādātā attīstības modeļa ieviešanai.

Pirmēji publicētajā žurnāla *Baltic Journal of Real Estate Economics and Construction Management* rakstā angļu valodā *Community Participation in Village Development: the Scale of Latvia* (doi:10.1515/bjreecm-2016-0007) tika identificēta novecojusi informācija, tādēļ tika veikts precizējums un norādīta aktuālā informācija attiecībā uz reģiona līmeņa plānošanas dokumentiem.

1.2. **Promocijas darba aizstāvēšanai izvirzītās tēzes**

Eiropā arvien vairāk uzmanības tiek pievērsts jaunai teritoriju attīstības pieejai jeb plānošanas virzienam “no apakšas uz augšu”, kas nozīmē, ka aizvien vairāk vietas attīstības lēmumiem ir jābūt pieņemtiem pēc iespējas zemākā plānošanas līmenī – ciema līmenī, tai skaitā vietējās kopienās. Sabiedrība kļūst aizvien aktīvāka un ieinteresētāka savas apkārtējās vides uzlabošanā.

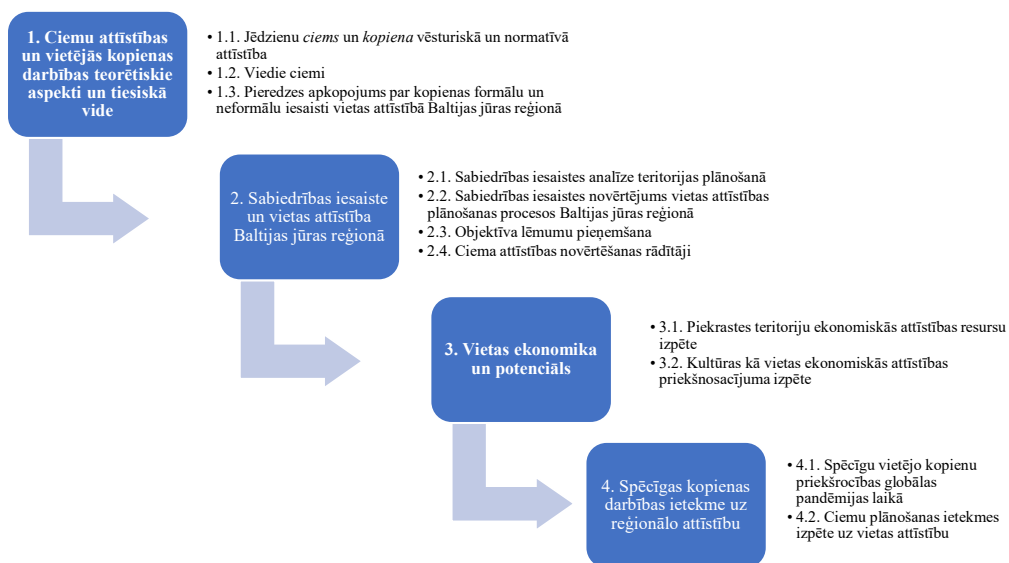
Ciems kā mazākā teritoriālā vienība ar tajā dzīvojošo kopienas nav definēts kā plānošanas līmenis teritoriju attīstības plānošanas sistēmas ietvaros, bet vienlaikus sabiedrība izrāda šādas iniciatīvas, piemēra, sabiedrības virzītu vietējās attīstības stratēģiju ietvaros.

Veicinot ciemu attīstības plānošanas līmeņa ieviešanu, ir jāņem vērā arī apkārt teritoriālajai kopienai esošie faktori – reģionālās attīstības principi, ilgtspējīgas attīstības nosacījumi, kā arī jānoskaidro un jāizmanto mūsdienīgas un atbilstošas sabiedrības iesaistes metodes. Apkopojot visus ārējos faktorus, ir iespējams izveidot priekšlikumu plānošanas rīkam ciema līmenī un piedāvāt instrumentus tā ieviešanai.

Būtiski ir ne tikai nodrošināt plānošanas procesu, bet arī uzraudzīt attīstības ieviešanas un situācijas izmaiņu progresu. Lai to paveiktu, ir nepieciešams kompleksi apskatīt novērtēšanas kritērijus, to mērīšanas datus un datu iegūšanas avotus.

Pētījuma dizains

Promocijas darbā paveiktā uzskatāmai attēlošanai pētījuma autors izstrādājis pētījuma dizaina shēmu, kas atspoguļo darba nodaļas, kā arī galvenās pētījuma darbības un izstrādes (1. att.).



1. att. Pētījuma dizaina shēma (autora izstrādāta).

1.3. Zinātniskās novitātes

1. Izstrādāts visaptverošs un iesaistošs vietējās teritorijas/kopienas attīstības plānošanas modelis (izstrādāts šī pētījuma ietvaros, ņemot vērā zinātnisko rakstu kopu un tajā ietvertās informācijas analīzi un izteiktos secinājumus un apskatāms priekšlikumu nodaļā).
2. Sabiedrību iesaistoša ciema plānošanas modeļa ieviešanas vajadzībām ir izvērtētās formālās un neformālās teritoriju attīstības plānošanas metodes Baltijas jūras reģionā, kas balstītas pieredžu apkopojumā gan no valstīm ar senām demokrātijas saknēm, gan jaunattīstības valstīm (1.3. apakšnodaļa un ar to saistītais zinātniskais raksts).
3. Lai, ieviešot sabiedrību iesaistošu ciema plānošanas modeli, tiktu ņemta vērā politiskā dimensija un ievērots teritoriju plānošanas process, ir identificēti ciemu un kopienu ilgtspējīgu attīstību raksturojošie indikatori, izceļot indikatorus, kuru analīze un uzkrāšana

- veicama mūsdienīgās informācijas sistēmās (2.4. apakšnodaļa un ar to saistītais zinātniskais raksts).
4. Lai novērtētu ekonomisko un ekoloģisko dimensiju kopienu attīstībā, ir izvērtēta Baltijas jūras ietekme uz ekonomikas un inovāciju attīstības potenciālu kopienās un teritorijās ap jūru, nodrošinot ilgtspējīgu ekonomikas virzienu attīstību (3.1. apakšnodaļa un ar to saistītie zinātniskie raksti).
 5. Lai novērtētu spēcīgu un iesaistītu kopienu ietekmi uz teritoriju attīstību un pārvaldību, veikta izpēte par kopienu spēju funkcionēt un attīstīties neparedzamu apstākļu ietekmē, konkrētajā gadījumā – *Covid-19* pandēmijas apstākļos (4.1. apakšnodaļa un ar to saistītais zinātniskais raksts).

Praktiskās novitātes

1. Sabiedrību iesaistoša ciema plānošanas modeļa ieviešanas vajadzībām izstrādāti praktiski priekšlikumi formālām un neformālām sabiedrības iesaistes formām (2.2. apakšnodaļa un ar to saistītais zinātniskais raksts).
2. Sagatavoti praktiski priekšlikumi ciema attīstības plānošanas līmeņa ieviešanai Latvijas reģionālās attīstības plānošanas sistēmā (izstrādāts šī pētījuma ietvaros, ņemot vērā zinātnisko rakstu kopu un tajā ietvertās informācijas analīzi un izteiktos secinājumus un apskatāms priekšlikumu nodaļā).
3. Izstrādāts praktiski izmantojams ciema un kopienas novērtēšanas indikatoru kopums ar datu vākšanas avotu sarakstu, kas ļauj novērtēt ciema un kopienas attīstības ilgtspējību un integritāti (2.4. apakšnodaļa un ar to saistītais zinātniskais raksts).

Darba praktiskais nozīmīgums

Pētījums ir praktiski nozīmīgs Vides aizsardzības un reģionālās attīstības ministrijai, plānošanas reģioniem un pašvaldībām, kas ir praktiski atbildīgas par reģionālās attīstības plānošanas sistēmas darbību Latvijā. Tas sniedz gan apkopojumus un piemērus par plānošanas metodēm, attīstības indikatoriem, gan arī priekšlikumu jaunam plānošanas līmenim – ciemu plānošana.

Pētījums ir praktiski nozīmīgs ciemu kopienām un ciemu kopienu iniciatīvu finansētājiem, jo pētījumā bez iepriekš norādītās informācijas ir atrodami arī apkopojumi par ieguvumiem un praktiskiem rezultātiem, ko sasniegušas aktīvas kopienas ciemu līmenī. Šādi dati var kalpot par motivāciju un pamudinājumu aizvien jaunām vietējo teritoriju attīstības iniciatīvām it sevišķi pēc 2021. gada administratīvi teritoriālās reformas, kad iedzīvotājam tuvākais atbalsta punkts (novads) lielākoties “pārvirotās” tālāk no ciema iedzīvotāja.

Rezultātu aprobācija

Par promocijas darba rezultātiem ziņots astoņās starptautiskās zinātniskajās konferencēs un astoņās publikācijās (sešas publikācijas zinātniskos žurnālos, divi raksti pilna teksta konferenču rakstu krājumā). Darbā izstrādātie apkopojumi un datu analīze prezentēta lekcijās un semināros Rīgas Tehniskās universitātes un Latvijas Universitātes studentiem. Darbā iegūtie dati un rezultāti aprobēti teritoriju ilgtspējīgas attīstības plānošanas nozares ekspertu sanāksmēs, konferencēs un darba grupās, kas saistītas ar projektā “*Coast4us*” izveidoto konsorciju, ko veido pašvaldības, universitātes, publiskās pārvaldes iestādes no Zviedrijas, Somijas (Ålandu salas), Latvijas un Igaunijas – kopā 17 partnerorganizācijas un kopā asociētie partneri. Latvijas konsorciju veidoja Carnikavas, Saulkrastu (izstājās projekta laikā), Salacgrīvas novadu pašvaldības, Rīgas Tehniskā universitāte un Vides aizsardzības un reģionālās attīstības ministrija.

Publikācijas zinātniskajos žurnālos

- **Pudzis, E.,** Geipele, S., Auziņš, A., Lazdiņš, A., Butnicka, J., Krumina, K., Ciuksa, I., Kaļinka, M., Krutova, U., Grimtiht, M., Prii-Pärn, M., Björklund, C., Vāvare, S., Hagström, J., Granqvist, I., Hallor, M. **Evaluation of Formal and Informal Spatial Coastal Area Planning Process in Baltic Sea Region.** International Journal of Environmental Research and Public Health, 2021, Vol. 18, No. 9, 1.–20. lpp. ISSN 1660-4601. Pieejams: doi:10.3390/ijerph18094895.
- Geipele, S., Kundziņa, A., **Pudzis, E.,** Lazdiņš, A. Evaluation of Community Involvement in Participatory Process – **Lessons Learned in the Baltic Sea Region.** Architecture and Urban Planning / Arhitektūra un pilsētplānošana, 2020, Vol. 16, No. 1, 56.–65. lpp. e-ISSN 2255-8764. Pieejams: doi:10.2478/aup-2020-0009.
- **Pudzis, E.,** Krutova, U., Geipele, S., Kaļinka, M., Auziņš, A. **Smart and Sustainable Local Communities in Global Covid-19 Pandemic Conditions.** Landscape Architecture and Art, 2020, Vol. 17, No. 17, 78.–88. lpp. ISSN 2255-8632. e-ISSN 2255-8640. Pieejams: doi:10.22616/j.landarchart.2020.17.09.
- Kaļinka, M., Geipele, S., **Pudzis, E.,** Lazdiņš, A., Krutova, U., Holms, J. **Indicators for the Smart Development of Villages and Neighbourhoods in Baltic Sea Coastal Areas.** Sustainability, 2020, Vol. 12, No. 13, Article number 5293. ISSN 2071-1050. Pieejams: doi:10.3390/su12135293.
- **Pudzis, E.,** Ādleris, Ā., Amoliņa, I., Geipele, S., Zeltiņš, N. **Identification of Maritime Technology Development Mechanisms in the Context of Latvian Smart Specialisation and Blue Growth.** Latvian Journal of Physics and Technical Sciences, 2018, Vol. 4, No. 1, 57.–69. lpp. ISSN 0868-8257. Pieejams: doi:10.2478/lpts-2018-0029.
- **Pudzis, E.,** Geipele, S., Geipele, I. **Community Participation in Village Development: the Scale of Latvia.** Baltic Journal of Real Estate Economics and Construction Management, 2016, 4, 84.–99. lpp. ISSN 2255-9604. e-ISSN 2255-9671. Pieejams: doi:10.1515/bjreecm-2016-0007.

Raksts pilna teksta konferenču rakstu krājumā

- **Pudzis, E.,** Geipele, S., Geipele, I. **Sea Natural Resource Potential for Blue Growth Policy Implementation in Baltic Sea Region.** IOP Conference Series: Earth and Environmental Science. Vol.453: 5th International Conference on Green Materials and Environmental Engineering (GMEE2019), Ķīna, Guangzhou, 27.–29. decembris, 2019. Bristol: IOP Publishing, 2020, Article number 012033. ISSN 1755-1307. e-ISSN 1755-1315. Pieejams: doi:10.1088/1755-1315/453/1/012033.
- **Pudzis, E.,** Geipele, I., Geipele, S. **The Basis for Sustainable Place-based Economic Development: The Role of Cultural Heritage in Latvia, Sweden and Ukraine.** No: 2017 2nd SSR International Conference on Social Sciences and Information (SSR-SSI 2017). Advances in Social and Behavioral Sciences. Vol. 17, Krievija, Moscow, 28.–29. jūnijs, 2017. Singapore: Singapore Management & Sports Sci Inst; Acad Conf Inst;

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- **Pudzis, E. Blue Growth Actions in Coastal Municipalities in Latvia.** “Scientific Problems of Engineering Economics of Construction and Real Estate Management, Regions and Territories Development ICEREE’2019” organized within 60th International Scientific Conference of Riga Technical University: Book of Abstracts
- **Ādlers, A., Pudzis, E. Dalīšanās ekonomika pakalpojumu pieejamības uzlabošanai reģionos.** Latvijas Universitātes 76. konference.
- **Pudzis, E., Ādlers, A., Geipele, S. Piekrastes teritoriju ekonomiskās izaugsmes instrumenti – viedā specializācija un “Blue Growth” politika.** Ģeogrāfija. Ģeoloģija. Vides zinātne: Latvijas Universitātes 76. zinātniskā konference: referātu tēzes.
- **Pudzis, E., Geipele, S., Geipele, I. Local Economic Development Planning Tools: from Subjective to Objective Ones.** Riga Technical University 58th International Scientific Conference “Scientific Conference on Economics and Entrepreneurship” (SCEE’2017): Proceedings.
- **Pudzis, E., Geipele, S., Geipele, I. Uzņēmēju iesaiste vietas ekonomikas attīstībā – iespējas vai draudi.** Ģeogrāfija. Ģeoloģija. Vides zinātne : Latvijas Universitātes 75. zinātniskā konference : referātu tēzes.
- **Pudzis, E., Geipele, S., Geipele, I. Community Participation in Village Development: a Case of Latvia.** 57th International Riga Technical University Scientific Conference on Economics and Entrepreneurship (SCEE’2016): Proceedings.

1. tabula

Kopsavilkums par rakstu kopas atbilstību studiju programmas nosacījumiem

Zinātniskā raksta nosaukums	Jābūt publicētiem vai pieņemtiem publicēšanai vismaz 8 (astoniem) zinātniskajiem rakstiem	Vismaz 4 (četriem) rakstiem jābūt oriģinālpublikācijām žurnālos, kas indeksēti <i>Scopus</i> un/vai <i>Web of Science</i>	No kuriem 2 (divu) rakstu bibliogrāfiskie rādītāji ir atbilstoši <i>Q1</i> vai <i>Q2</i> līmeņa (<i>SCImago Journal Rank/Journal Citation Reports</i>) kategorijas ranga žurnāliem	Vismaz 2 (divos) rakstos, kas indeksēti <i>Scopus</i> un/vai <i>Web of Science</i> , zinātnes doktora grāda pretendents ir jābūt pirmajam autoram
<i>Community Participation in Village Development: the Scale of Latvia</i>	X			X
<i>Evaluation of Formal and Informal Spatial Coastal Area</i>	X	X	X	X

<i>Planning Process in Baltic Sea Region</i>				
<i>Evaluation of Community Involvement in Participatory Process – Lessons Learned in the Baltic Sea Region</i>	X	X		
<i>Indicators for the Smart Development of Villages and Neighbourhoods in Baltic Sea Coastal Areas</i>	X	X		
<i>Identification of Maritime Technology Development Mechanisms in the Context of Latvian Smart Specialisation and Blue Growth</i>	X	X		X
<i>Sea Natural Resource Potential for Blue Growth Policy Implementation in Baltic Sea Region</i>	X	X		X
<i>The Basis for Sustainable Place-based Economic Development: The Role of Cultural Heritage in Latvia, Sweden and Ukraine</i>	X	X		X
<i>Smart and Sustainable Local Communities in Global Covid-19 Pandemic Conditions</i>	X	X	X	X
KOPĀ:	8 (izpildīts)	7 (izpildīts)	2 (izpildīts)	6 (izpildīts)

2. tabula

Autora personīgā ieguldījuma novērtējums

Zinātniskā raksta nosaukums	Lappušu skaits darbā	Personīgais ieguldījums (lapas)	Ieguldījuma raksturojums
<i>Community Participation in Village Development: the Scale of Latvia</i>	16	16	Pašnovērtējums – 16 lappuses, 95 %, pilna raksta autors ar

			darba vadītāju atbalstu publikācijas konceptualizācijā
<i>Evaluation of Formal and Informal Spatial Coastal Area Planning Process in Baltic Sea Region</i>	20	12	Pašnovērtējums – 12 lappuses, 60 %, publikācijas pamatnostādnes, metodoloģija, analīzes daļa, validācija, tekstu radīšana, apkopošana un sistematizācija, raksta saskaņošana ar recenzentiem
<i>Evaluation of Community Involvement in Participatory Process – Lessons Learned in the Baltic Sea Region</i>	10	5	Korespondējošā autora novērtējums – 5 lappuses, 62 %, publikācijas pamatnostādnes, metodoloģijas un oriģinālā manuskripta sagatavotājs
<i>Indicators for the Smart Development of Villages and Neighbourhoods in Baltic Sea Coastal Areas</i>	13	8	Korespondējošā autora novērtējums – 8 lappuses, 66 %, publikācijas pamatnostādnes, metodoloģijas un oriģinālā manuskripta sagatavotājs
<i>Identification of Maritime Technology Development Mechanisms in the Context of Latvian Smart Specialisation and Blue Growth</i>	12	8	Pašnovērtējums – 8 lappuses, 70 %, publikācijas pamatnostādnes, metodoloģija, analīzes daļa, validācija, tekstu radīšana, apkopošana un sistematizācija, raksta saskaņošana ar recenzentiem
<i>Sea Natural Resource Potential for Blue Growth Policy Implementation in Baltic Sea Region</i>	6	6	Pašnovērtējums – 6 lappuses, 95 %, pilna raksta autors ar darba vadītāju atbalstu publikācijas konceptualizācijā
<i>The Basis for Sustainable Place-based Economic Development: The Role of Cultural Heritage in Latvia, Sweden and Ukraine</i>	5	5	Pašnovērtējums – 5 lappuses, 95 %, pilna raksta autors ar darba vadītāju atbalstu publikācijas konceptualizācijā
<i>Smart and Sustainable Local Communities in Global Covid-19 Pandemic Conditions</i>	11	6	Pašnovērtējums – 6 lappuses 50 %, publikācijas metodoloģija, analīzes daļa, validācija, tekstu radīšana, raksta saskaņošana ar recenzentiem
KOPĀ:		66 (izpildīts)	

IEVADS

Promocijas darbs sagatavots, lai sniegtu kopsavilkumu par autora izstrādāto zinātnisko rakstu kopu un izstrādātājiem pētījumiem. Ar zinātnisko rakstu kopu autors pamato pētījuma gaitu, atsevišķo rakstu savstarpējo sasaisti, kā arī pētījuma tematisko vienotumu un secīgumu.

Promocijas darbā ir četras nodaļas, kas secīgi un savstarpēji saistīti apstiprina izvirzīto hipotēzi. Pētījuma mērķis ir sasniegts, un promocijas darba vispārējā pārskata daļā definētie uzdevumi ir izpildīti.

Pētījuma pirmajā nodaļā izvērtēti ciemu attīstības un vietējās kopienas darbības teorētiskie aspekti un tiesiskā vide, tai skaitā aprakstīti **ciema, kopienas** un **viedā ciema** jēdzieni, to vēsturiskā attīstība un mūsdienu nozīme. Apkopota un analizēta arī pieredze par vietējās kopienas formālu un neformālu iesaisti vietas attīstībā, tai skaitā plānošanas pieeja “no apakšas uz augšu”.

Ņemot vērā to, ka pētījuma pamatā ir ilgtspējīgas attīstības teorija, promocijas darba otrajā un trešajā nodaļā veikta izpēte par ilgtspējas dimensijām un to integrēšanu visaptverošā un iesaistošā vietas attīstībā.

Otrajā nodaļā pētīti jautājumi, kas saistīti ar sociālo, politisko, kultūras un garīgo dimensiju, trešajā nodaļā – ekonomisko un ekoloģisko dimensiju. Analizēts vietējās kopienas iesaistes process, piemēri veiksmīgai kopienas iesaistei, kā arī izstrādāti ciema attīstības novērtēšanas indikatori, kas palīdz nodrošināt ne tikai vietas plānošanas procesu, bet arī attīstības novērtēšanas procesu.

Trešajā nodaļā noteiktas piekrastes teritoriju ekonomiskās attīstības iespējas, vērtējot no viedās specializācijas un “zilās izaugsmes” politikas viedokļa. Papildus pētīta arī kultūra kā ekonomiskās aktivitātes priekšnosacījums piekrastē, jo tieši šajās teritorijās kultūrvēsturiskais mantojums ieņem nozīmīgu vietu kopienu attīstībā.

Promocijas darba ceturrtā nodaļa veltīta rezultātu aprobācijai, tai skaitā identificēta spēcīgu kopienu nozīme globālās pandēmijas apstākļos un analizēta Carnikavas pagasta Garupes ciema plāna izstrāde, tās kopienas aktivitāte un plāna ieviešanas rezultāti.

Pētījuma noslēgumā autors ir norādījis 11 secinājumus, izteicis piecus priekšlikumus, kā arī sniedzis priekšlikumu vietējās teritorijas/kopienas attīstības plānošanas modelim.

Promocijas darba kopsavilkumā ir 61 lappuse, pievienoti deviņi pielikumi, izmantoti 69 literatūras avoti. Pētījumā iekļautas deviņas tabulas un astoņi attēli.

1. Ciemu attīstības un vietējās kopienas darbības teorētiskie aspekti un tiesiskā vide

Šajā nodaļā, lai izpildītu pētījuma uzdevumu “Izpētīt ciemu attīstības un vietējās kopienas darbības teorētiskos un normatīvos aspektus”, autors ir izvērtējis ciemu, kopienu, viedo ciemu un plānošanas sistēmu teorētiskos un tiesiskos aspektus par ilgtspējīgas attīstības plānošanas nosacījumiem, kas rada pamatu tālākai vietējās teritorijas/kopienas attīstības plānošanas modeļa izstrādei.

Nodaļā apkopota un analizēta arī pieredze par formālajām un neformālajām plānošanas metodēm Baltijas jūras reģionā, lai ne tikai izpildītu pētījuma uzdevumu par sabiedrības iesaistes un vietas attīstības metožu apkopojumu, bet arī sniegtu plašāku redzējumu par sabiedrības iesaistes iespējām Latvijā, kas balstās citu valstu pieredzē.

1.2. 1.1. Jēdzienu “ciems” un “kopiena” vēsturiskā un normatīvā attīstība

Latvijā saskaņā ar Administratīvo teritoriju un apdzīvoto vietu likumu (Latvijas Republikas Saeima, 2011) **ciems** ir viens no trim apdzīvoto vietu veidiem (līdzās pilsētai un viensētai). Ciema statusu var piešķirt un atcelt attiecīgā pašvaldība (novada dome), pamatojoties uz teritorijas plānojumu, kurā nosaka ciema robežas un pamato ciema izveides nepieciešamību. Ciema statusu var piešķirt tādai teritorijai, kurā ir (vai tiek plānota) koncentrēta apbūve, pastāvīgi dzīvo cilvēki un ir izveidota attiecīga infrastruktūra. Vienlaikus likums nosaka, ka ciema statusu var piešķirt tādai novada teritorijas daļai, kurā ir (vai tiek plānota) koncentrēta apbūve, pastāvīgi dzīvo cilvēki un ir izveidota attiecīga infrastruktūra.

Jurģis Kavacs darbā “Ciema jēdziena vēsturiskā attīstība” (Kavacs) apkopojis: “**Ciems** ir konkrēta lauku apdzīvotā vieta, nevis administratīvi teritoriāla vienība, kā tas bija no 1945. līdz 1992. gadam” (Latviešu konversācijas vārdnīca. XVI burtnīca. – Rīga, 1928–1929. – 3901. sleja). Tomēr nošķirt apdzīvoto vietu no administratīvi teritoriālas vienības ne vienmēr ir viegli, jo abām ir vairāki vienādi raksturlielumi.

Apdzīvotā vieta ir ilgstoša, pastāvīga vai sezonāla cilvēku apmetne, kur izveidoti dzīvošanai nepieciešamie materiālie priekšnoteikumi (ir mājokļi un komunikācijas). Tas, ka lauku apdzīvotās vietas ir atšķirīgas pēc struktūras, zināms jau sen, tomēr vienotas un vispārpieņemtas lauku apdzīvoto vietu klasifikācijas Latvijā joprojām nav. Jāatzīmē, ka 20. gs. 30. gadu statistikā ar jēdzienu “lauku apdzīvotā vieta” tika saprasta tikai atsevišķa apdzīvota ēka.

Latviešu konversācijas vārdnīcā par **ciemu** saukts viens no vairākiem lauku apdzīvoto vietu tipiem, savukārt padomju laika izdevumos vārds ciems attiecināts tikai uz administratīvi teritoriālu vienību.

Kopienas apdzīvota vieta var būt arī norobežota teritorija, piemēram, **ciems** vai **piekrastes pilsētas** vai **pilsētīņas apkaime** un ietver **kopienu**, kas dzīvo šajā teritorijā. **Kopienas** pamatelementi:

- ✓ vieta, vietas izjūta, kas attiecas uz ģeogrāfisku vienību, sākot no apkaimes līdz pilsētai, vai noteiktu vidi, ap kuru pulcējas cilvēki (piemēram, baznīcu vai atpūtas centru);
- ✓ daļība, kopīgas intereses un perspektīvas, kas attiecas uz kopīgām interesēm un vērtībām, kas var šķērsot ģeogrāfiskās robežas;
- ✓ kopīga rīcība, saskaņotības un identitātes sajūta, tostarp neformālas kopīgas darbības, piemēram, veicamo uzdevumu piešķiršana un palīdzība kaimiņiem, taču šīs darbības ne vienmēr bija ar nolūku veidotas, lai radītu kopienas kohēziju;

- ✓ sociālās saites, kas ietver attiecības, radot pastāvīgu kohēzijas sajūtu;
- ✓ daudzveidība, kas galvenokārt attiecas nevis uz etniskām grupām, bet gan uz sociālo sarežģītību kopienās, kurās līdzās pastāv daudzas kopienas (Holms, *et al.*, 2018). Kopienas statuss izriet no spējas pašorganizēties noteiktiem mērķiem piekastes zonās.

Savukārt M. Uščas promocijas darbā “Teritoriālo kopienu veidošanās procesi Rīgā” (Ušča, 2013) apskatīts **teritoriālas kopienas** jēdziens: “Ja kopienu vienojošais faktors ir kopīga teritorija, var runāt par teritoriālajām kopienām pilsētā. Tātad teritoriālo kopienu primāri raksturo kopīga teritorija un noteikta attieksme pret šo teritoriju. Kopumā cilvēka ģeogrāfijā ideju par pilsētu kopienām izmanto kā noteiktu kategoriju, kas attiecas uz vienu no divām pazīmēm: ģeogrāfiski vai administratīvi vienotām cilvēku grupām; noteiktām kopīgām pazīmēm (piemēram, interesēm, identitāti u. c.), kas individuus apvieno vienā kopienā.”

Pilsētu socioloģe Margarete Kuzenbaha atzīst, ka **teritoriālas kopienas** var definēt dažādi – tās var būt dažāda izmēra, struktūras un mēroga, tomēr ir iespējams izcelt trīs atzītas, būtiskas visu teritoriālu kopienu raksturojošas pazīmes:

- ✓ noteikts novietojums;
- ✓ kopīgas indivīdu saiknes (kopīgas intereses, identitāte u. c.);
- ✓ indivīdu sociālā mijiedarbība.

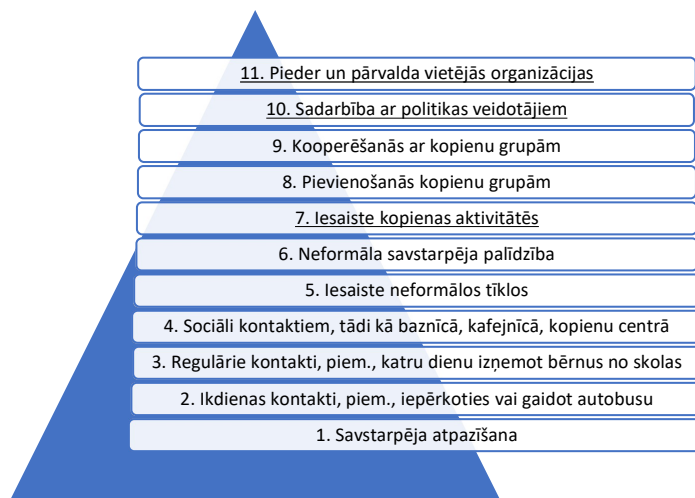
Noteikts novietojums/kopīga teritorija. Viena no teritoriālu kopienu raksturojošām pazīmēm ir kopīga teritorija. Atšķirībā no interešu, etniskām u. c. kopienām, teritoriālajām kopienām kopīgā teritorija ir pamats, kurā šī kopiena ir bāzēta. Kopīgā teritorija, pirmkārt, var nozīmēt kopīgu dzīvesvietu un ar to saistītās pazīmes – piederību, identificēšanos ar noteikto novietojumu, otrkārt, šīs teritorijas kopīgu izmantošanu un rūpes par to, kā arī atbildību. Protams, ne visu teritoriju iedzīvotājus raksturo visas minētās pazīmes.

Saiknes. Saiknes sajūta (*feeling of connection*) ar citiem iedzīvotājiem, kas dažādu zinātņu nozarēs un apakšnozarēs tiek apzīmēta arī ar terminiem “sociālais kapitāls”, “sociālais atbalsts” (*social support*), “apkaimes ciešums” (*neighbourhood cohesion*), “piederība vietai” (*place attachment*), “piederības sajūta” (*sense of belongingness*) un “kopienas izjūta” (*sense of community*), kā arī sajūta, ka indivīds ir daļa no kopienas, ir viena no svarīgākajām cilvēka pamatvajadzībām. **Iedzīvotāju kopīgās saiknes var būt balstītas kopīgās interesēs, kopīgā problēmu risināšanā u. c., tās var būt saistītas ar procesiem, kas notiek iedzīvotājiem kopīgajā telpā, kā arī ar procesiem, kas nav tiešā veidā saistīti ar konkrētu vietu.**

Sociālā mijiedarbība. Savstarpējās mijiedarbības bāze teritoriālo kopienu veidošanās kontekstā ir kaimiņu ikdienas komunikācija (*neighbouring*), kas sākas ar vienkāršu, pieklājīgu sveicināšanos un var izvērsties pat par tuvu draudzību. Savstarpējās mijiedarbības pamats ir saskarsme.

Deivids Tomass, kurš strādājis ar kopienu veidošanu, būdams galvenais Kopienu attīstības fonda izpilddirektors, piedāvā savu redzējumu par teritoriālo kopienu (*place-based communities*) veidošanu. Viņš uzsver sociālo resursu un procesu lielo lomu, veidojot “dzīvotspējīgas” jeb “saskarsmes” kopienas: a) kas tiek veidotas tā, lai savestu kopā iedzīvotājus, nevis distancētu tos citu no cita; b) kur ir sociālos kontaktus veicinošas iespējas/mehānismi – kafējnīcas, baznīcas, veikali, krogi, kopienu centri utt.; c) kur ir regulāras aktivitātes, kas veicina iedzīvotāju mijiedarbību, piemēram, bērnu vešana uz skolu, ejot kājām, nevis braucot ar automašīnu; d) kur ir dažādi “dzīvi” sociālie un atpūtas tīkli, kā arī tīkli, kas balstīti savstarpējā palīdzībā; e) kur ir aktīvas dažāda veida un ar dažādiem mērķiem organizācijas, kas saved cilvēkus kopā un kas definē un pārstāv viņu idejas un problēmas; f) kas atļauj iedzīvotājiem uzņemties sabiedriskas lomas ārpus mājāsaimniecības – lomas, kas šos iedzīvotājus apmierina un ir kā pakalpojums pārējiem iedzīvotājiem. Šie ir aspekti, ko jāņem vērā, analizējot kopienu veidošanos noteiktās apkaimēs.

Lai vēl dziļāk izprastu kopienu veidošanos, Tomass ir radījis kopienu mijiedarbības skalu (2. att.).



2. att. Kopienu mijiedarbības skala (autora izstrādāta, izmantojot (Ušča, 2013)).

Kā redzams 2. attēlā, 7.–11. pakāpe ir atdalīta, tās nodala zemākos regulāros un pašus par sevi saprotamos ikdienas kopienas mijiedarbības aspektus no augstākiem/sarežģītākiem un formālākiem kopienas dzīvi organizējošiem aspektiem.

Ņemot vērā to, ka vēsturiski ciemi Latvijā nav veidojušies kā kompaktas apbūves teritorijas, bet galvenokārt balstījušies cilvēku savstarpējās saitēs un vajadzībās, kā arī teorētiski šāds teritoriāls ierobežojums veido kopienas, turpmāk pētījumā iespējams runāt par **ciemu un kopienu integrētu attīstību** jeb **teritoriālajām kopienām**, kam definētas skaidras darbības robežas.

Kopienas attīstība ir svarīgs telpiskās plānošanas posms, kas īpaši daudz ir pētīts Lielbritānijā (Turner, 2009). Mazāk tas ir darīts – ASV (Vitiello un Wolf-Powers, 2014), Austrālijā (Campbell un Hunt, 2013) un Īrijā (Gaynor, 2011), kā arī tādās jaunattīstības valstīs dažādos kontinentos kā Kamerūna (Alasah, 2011), Indonēzija (Kenny, Fanany, Rahayu, 2013), Ķīna (Chan, 2013) u. c., runājot par iespējām veicināt kopienas attīstību.

Pēc Padomju Savienības pastāvēšanas beigām papildu uzmanība radīta arī postpadomju valstu kopienu un to attīstības principu izpētei, piemēram, pētīti Gruzijas (Vasadze un Datuashvili, 2011), Ukrainas (Williams u. c., 2012), Lietuvas (Macken-Walsh, 2009) piemēri. Atsevišķu pētījumu, kas pieejami zinātniskajā literatūrā par Latvijas kopienu attīstību, ir salīdzinoši maz, tādēļ nepieciešams apskatīt nozīmīgākās pieredzes tuvākajās valstīs un Lielbritānijā.

Sabiedrības virzīta vietēja attīstība (SVVA) ir termins, ko Eiropas Komisija izmanto, lai aprakstītu pieeju, kas pavērš otrādi tradicionālo “lejupejas” attīstības politiku. SVVA gadījumā vietējie iedzīvotāji uzņemas iniciatīvu un veido vietēju partnerību, kas plāno un īsteno integrētas attīstības stratēģiju. Stratēģija ir paredzēta, lai veidotu kopienas sociālo, vides un ekonomisko

spēku vai "aktīvus", nevis vienkārši saņemtu atlīdzību par esošajām problēmām. Tādēļ partnerība saņem ilgtermiņa finansējumu un pati lemj, kā līdzekļus tērēt.

SVVA ir īpašs instruments lietošanai apakšreģionu līmenī, kas papildina pārējo attīstības atbalstu vietējā līmenī. SVVA var mobilizēt un iesaistīt vietējās kopienas un organizācijas stratēģijas "Eiropa 2020" mērķu sasniegšanā gudras, ilgtspējīgas un iekļaujošas izaugsmes veicināšanai, teritoriālās kohēzijas realizēšanai un konkrētu politikas mērķu sasniegšanai.

Kopumā pieeja ir attīstījusies no *LEADER*, *EQUAL*, *URBACT* u. tml. ES iniciatīvām, kas līdz šim ir bijušas ar nozarisku redzējumu, attiecīgi arī finansējumu, bet veido multifondu un multipolitiku pieeju.

Teritorijas attīstības plānošanas likums (Latvijas Republikas Saeima (2011/1)) ietver:

- ✓ ilgtspējības principu – teritorijas attīstību plāno, lai saglabātu un veidotu esošajām un nākamajām paaudzēm kvalitatīvu vidi, līdzsvarotu ekonomisko attīstību, racionālu dabas, cilvēku un materiālo resursu izmantošanu, dabas un kultūras mantojuma attīstību;

- ✓ attīstības programmu – vidēja termiņa teritorijas attīstības plānošanas dokuments, kurā noteiktas vidēja termiņa prioritātes un pasākumu kopums plānošanas reģiona vai vietējās pašvaldības attīstības stratēģijā izvirzīto ilgtermiņa stratēģisko uzstādījumu īstenošanai;

- ✓ ilgtspējīgas attīstības stratēģiju – ilgtermiņa teritorijas attīstības plānošanas dokuments, kurā noteikts plānošanas reģiona vai vietējās pašvaldības ilgtermiņa attīstības redzējums, mērķi, prioritātes un telpiskās attīstības perspektīva;

- ✓ vietējās pašvaldības teritorijas plānojumu – vietējās pašvaldības ilgtermiņa teritorijas attīstības plānošanas dokuments, kurā noteiktas prasības teritorijas izmantošanai un apbūvei, tajā skaitā funkcionālais zonējums, publiskā infrastruktūra, teritorijas izmantošanas un apbūves noteikumi, kā arī citi teritorijas izmantošanas nosacījumi un kuru izstrādā administratīvajai teritorijai vai tās daļai.

Teritorijas plānošanu, izstrādājot savstarpēji saskaņotus plānošanas dokumentus, **īsteno šādos plānošanas līmeņos**:

- ✓ **nacionālajā līmenī** – Latvijas ilgtspējīgas attīstības stratēģija, kas ietver telpiskās attīstības perspektīvu;

- ✓ **plānošanas reģiona līmenī** – plānošanas reģiona ilgtspējīgas attīstības stratēģija un attīstības programma;

- ✓ **vietējās pašvaldības līmenī** – vietējās pašvaldības teritorijas plānojumā un detālplānojumā ir noteiktas vietējās pašvaldības teritorijas attīstības iespējas, virzieni un aprobežojumi, grafiski attēlota vietējās pašvaldības teritorijas pašreizējā un noteikta plānotā (atļautā) izmantošana, kā arī detalizētas augstāka līmeņa teritorijas plānojumos noteiktās prasības, teritorijas un objekti.

Latvijas Republikā visi normatīvie akti tiek izdoti hierarhiskā sistēmā, tādēļ augstākais dokuments ir likums, kam papildus tiek izdoti Ministru kabineta noteikumi, savukārt tos skaidro metodiskie ieteikumi.

Teritoriju attīstības plānošanu Latvijā Republikā regulē Teritorijas attīstības plānošanas likums (Latvijas Republikas Saeima (2011/1), tā mērķis ir veicināt un nodrošināt līdzsvarotu un ilgtspējīgu valsts attīstību, ievērojot visas valsts teritorijas un atsevišķu tās daļu īpatnības un iespējas, samazināt nelabvēlīgās atšķirības starp tām, kā arī saglabāt un attīstīt katras teritorijas dabai un kultūrvidei raksturīgās iezīmes un attīstības potenciālu. Likums vietējās pašvaldības attīstības plānošanas dokumentiem nosaka šādas prasības:

- ✓ reģionālo attīstību īsteno atbilstoši šādiem savstarpēji saskaņotiem valsts un reģionālās attīstības plānošanas dokumentiem – nacionālais attīstības plāns, nacionālais plānojums, reģionālās politikas pamatnostādnes, nozaru attīstības programmas, plānošanas

reģionu attīstības programmas un teritoriju plānojumi, vietējo pašvaldību attīstības programmas un teritoriju plānojumi;

✓ vietējās pašvaldības **attīstības programma ir ilgtermiņa (12 gadi)** reģionālās politikas plānošanas dokuments, kurā noteiktas attiecīgās vietējās pašvaldības attīstības prioritātes. Vietējās pašvaldības attīstības programmu izstrādā un īsteno saskaņā ar attiecīgās vietējās pašvaldības teritorijas plānojumu.

Pašvaldību darbību Latvijas Republikā pētījuma izstrādes laikā reglamentēja likums “Par pašvaldībām” (Latvijas Republikas Saeima, 1994), kas reglamentē Latvijas pašvaldību darbības vispārīgos noteikumus un ekonomisko pamatu, pašvaldību kompetenci, domes un tās institūciju, kā arī domes priekšsēdētāja tiesības un pienākumus, pašvaldību attiecības ar Ministru kabinetu un ministriem, kā arī pašvaldību savstarpējo attiecību vispārīgos noteikumus. Likums vietējās pašvaldības attīstības plānošanas dokumentiem nosaka šādas prasības:

✓ pašvaldību pienākums ir izstrādāt pašvaldības teritorijas attīstības programmu un teritorijas plānojumu, nodrošināt teritorijas attīstības programmas realizāciju un teritorijas plānojuma administratīvo pārraudzību;

✓ domes tiesības ir apstiprināt pašvaldības teritorijas attīstības programmu un teritorijas plānojumu.

Attīstības plānošanas sistēmu Latvijas Republikā reglamentē Attīstības plānošanas sistēmas likums (Latvijas Republikas Saeima, 2008), tā mērķis ir, nosakot attīstības plānošanas sistēmu, sekmēt valsts ilgtspējīgu un stabilu attīstību, kā arī iedzīvotāju dzīves kvalitātes uzlabošanu. Likums vietējās pašvaldības attīstības plānošanas dokumentiem nosaka šādas prasības:

- ✓ attīstības plānošanas dokumentā izvirza mērķus un sasniedzamos rezultātus attiecīgā politikas jomā vai teritorijā, apraksta noskaidrotās problēmas un paredz to risinājumus, izvērtē šo risinājumu iespējamo ietekmi, kā arī plāno turpmāko politikas īstenošanai un rezultātu novērtēšanai nepieciešamo rīcību;
- ✓ attīstību plāno **ilgtermiņā (līdz 25 gadiem)**, vidējā termiņā (līdz septiņiem gadiem) un īstermiņā (līdz trim gadiem), kā arī izstrādā plānošanas dokumentus konceptuāla lēmuma pieņemšanai vai nacionālās pozīcijas formulēšanai;
- ✓ vietējā līmeņa attīstības plānošanas dokumenti ir hierarhiski pakārtoti reģionālā un nacionālā līmeņa attīstības plānošanas dokumentiem. Reģionālā līmeņa attīstības plānošanas dokumenti ir hierarhiski pakārtoti nacionālā līmeņa attīstības plānošanas dokumentiem.

Pamatojoties uz šajā apakšnodaļā apkopto informāciju, autors secina, ka Latvijā pastāv pietiekami daudz normatīvo aktu, kas regulē ilgtspējīgas un līdzsvarotas attīstības plānošanai nepieciešamo principu ievērošanu – sabiedrības iesaisti, kontroles mehānismu, dokumentu savstarpējo sasaisti. Vienlaikus ir noskaidrots, ka Latvijas attīstības plānošanas sistēma neparedz zemāku plānošanas līmeni kā pašvaldība, kā arī vienlaikus sabiedrības iesaiste ir paredzēta formālā veidā.

Šajā apakšnodaļā iekļautās daļas angļu valodā pirmēji publicētas žurnāla *Baltic Journal of Real Estate Economics and Construction Management* rakstā *Community Participation in Village Development: the Scale of Latvia* (doi:10.1515/bjreecm-2016-0007).

1.2. Viedie ciemi

Viedie ciemi ir lauku apvidu kopienas, kas izmanto inovatīvus risinājumus, lai uzlabotu savu dzīves kvalitāti, balstoties vietējās priekšrocībās un iespējās. Tie balstās **līdzdalības pieejā**, izstrādājot un īstenojot savu stratēģiju, lai uzlabotu ekonomiskos, sociālos un/vai vides apstākļus, jo īpaši mobilizējot digitālo tehnoloģiju piedāvātos risinājumus. Viedie ciemi gūst labumu no sadarbības un alianses ar citām kopienām un dalībniekiem lauku un pilsētu teritorijās. Viedo ciemu stratēģiju iesākšana un īstenošana var balstīties esošajās iniciatīvās, un tos var finansēt no dažādiem valsts un privātiem avotiem. Kopienas lauku apvidos var ietvert vienu vai vairākas cilvēku apmešanās vietas bez jebkādiem administratīvo robežu vai iedzīvotāju skaita ierobežojumiem. Attiecībā uz atbalsta saņemšanas nosacījumiem ES dalībvalstis var izmantot lauku apvidu definīcijas, kā paredzēts *ESAO*, *EUROSTAT* vai citās definīcijās.

Līdzdalības pieeja nozīmē vietējās sabiedrības aktīvu līdzdalību viedo ciemu stratēģijas izstrādē un lēmumu pieņemšanā. Īstenošanas posmā līdzdalības pieeja nodrošinās to, ka pienācīgi tiek risinātas resursu palielināšanas un cilvēku apmācības vajadzības. Digitālās tehnoloģijas ietver, piemēram, informācijas un komunikāciju tehnoloģijas, lielu datu izmantošanu vai inovācijas, kas saistītas ar lietiskā interneta (*IoT*) izmantošanu. Tās darbojas kā svira, lai veicinātu viedo ciemu darbību, labāk izmantotu savus resursus un uzlabotu lauku apvidu pievilcību un lauku iedzīvotāju dzīves kvalitāti. Digitālo tehnoloģiju izmantošana nav priekšnoteikums, lai kļūtu par viedo ciemu. Kur iespējams, ātrdarbīga platjosla atvieglos digitālo risinājumu ieviešanu. Viedo ciemu stratēģijas reaģē uz savas teritorijas problēmām un vajadzībām, balstoties vietējās stiprajās pusēs un vērtībās. Stratēģijās jānosaka īstermiņa, vidēja termiņa un ilgtermiņa mērķi. Progresam jābūt izmērāmam, izmantojot izpildes rādītājus, kas tiks noteikti rīcības plānā. Šie rīcības plāni būtu regulāri jāpārskata, lai tos varētu pastāvīgi uzlabot. Stratēģiju mērķis var būt, piemēram: uzlabot piekļuvi pakalpojumiem (dažādās jomās, piemēram, veselības, apmācības vai transporta jomā); uzlabot uzņēmējdarbības iespējas un radīt darbavietas; attīstīt īsas pārtikas piegādes ķēdes un lauksaimniecības praksi; attīstīt atjaunojamus energoresursus; attīstīt aprites ekonomiku; labāk izmantot dabas resursus; pielāgoties klimata pārmaiņām; saglabāt vidi un bioloģisko daudzveidību; uzlabot kultūras mantojuma vērtību, lai tas būtu pievilcīgāks tūrismam utt. (*Thomas, 1991*).

ES komisārs Fils Hogans (*Phil Hogan*) 2018. gada 22. maijā teica: “Viedo ciemu mērķis ir apvienot dažādas politikas, lai rastu labākus un gudrākus veidus, kā veicināt vienotu lauku attīstību. Runa ir par esošo un jauno tehnoloģiju un sociālo inovāciju izmantošanu, lai palielinātu mūsu iedzīvotāju dzīves vērtību. Tā paredz sniegt ciemiem instrumentus savu problēmu risināšanai, vienlaikus arī sniedzot ieguldījumu lielāko problēmu risināšanā, ar kurām saskaras sabiedrība kopumā” (*Smart Villages, 2020*).



3. att. Viedā ciema jēdziens (*New thinking*, 2020).

Viedais ciems ir progresīvs jēdziens ārpustūkļa kopienai, kur ikviena cilvēka pamattiesību sastāvdaļa attiecas uz viedo tehnoloģiju. Atjaunojamie un ilgtspējīgie energopakalpojumi veicina attīstību viedā ciema koncepcijā. 3. attēlā redzami viedie pakalpojumi, kas pieejami viedā ciemā (*Haider, Siddique un Alam, 2018*).

Viedie ciemi ir lauku apvidi un kopienas, kas izmanto savas esošās stiprās puses un vērtības, kā arī attīsta jaunas iespējas, lai radītu jaunu pievienoto vērtību. Viedajos ciemos tiek meklētas un uzlabotas tradicionālās lietas un jaunas pieejas, izmantojot digitālās komunikācijas tehnoloģijas, jauninājumus un zināšanu labāku izmantošanu iedzīvotāju labā (*Eiropas Komisija, 2020*).

Viedo ciemu pamatā ir cilvēki, t. i., lauku kopienas, kas uzņemas iniciatīvu rast praktiskus risinājumus gan esošo problēmu risināšanai, gan maksimāli izmantot jaunās iespējas lauku apvidu pārveidošanai nākotnē (*Eiropas Komisija, 2020/1*).



4. att. Viedā ciema jēdziens (*Haider, Siddique un Alam, 2018*).

Termins “viedais” nozīmē:

✓ **digitālo tehnoloģiju izmantošana** tur, kur tās ir piemērojamas, nevis tāpēc, ka tās ir modernas vai aktuālas; viedie ciemi bieži izmanto digitālo tehnoloģiju pievienoto vērtību, bet šis ir tikai viens no rīkiem, lai uzlabotu veiktspēju;

✓ **domāšana ārpus ciema**; dažas no pašreizējām viedo ciemu praksēm pārstāj darboties ciema teritorijā, taču ir arī dažas, kas ietver apkārtējo lauku teritoriju, ciemu grupas, mazpilsētas un sadarbību ar lielajām pilsētām;

✓ **jauna sadarbība un jaunu sadarbības formu attīstība** – starp lauksaimniekiem un citiem uzņēmējiem lauku apvidos, starp pašvaldībām, privāto un valsts sektoru, sadarbība notiek “no apakšas uz augšu” un “no augšas uz leju”;

✓ rūpes par sevi; viedo ciemu pieejai nav vienota kopīga modeļa vai risinājuma – galvenais uzvars tiek likts uz vietējiem iedzīvotājiem un viņu spēju izmantot vietējos resursus, pielietot savas zināšanas un uzņemties iniciatīvu.

No iepriekš minētās informācijas ir noskaidrojams, ka sabiedrība nevar paļauties tikai uz iekšējiem kopienas resursiem, nešķērsojot ciemu vai kopienu robežas. Ir vajadzīga saikne, kas nodrošina sadarbību ar kaimiņu kopienām, pašvaldību, uzņēmējiem un valsts iestādēm (3. att.).

Šajā apakšnodaļā iekļautās daļas angļu valodā pirmēji publicētas žurnāla *Landscape Architecture and Art* rakstā *Smart and Sustainable Local Communities in Global Covid-19 Pandemic Conditions* (doi:10.22616/j.landarchart.2020.17.09).

1.3. Pieredzes apkopojums par kopienas formālu un neformālu iesaisti vietās attīstībā Baltijas jūras reģionā

Turpinot analīzi, ir sniegts novērtējums par to, vai formāla pieeja vietas plānošanai mūsdienās ir pietiekama, lai nodrošinātu ilgtspējīgu vietas attīstību. Šis konceptuālais jautājums ir būtisks, lai sniegtu pamatu priekšlikumiem par jauna plānošanas līmeņa ieviešanu un pieeju tam.

Pēc dažādu teritorijas plānošanas līmeņu novērtēšanas Latvijā, Igaunijā, Somijā (Ālandu salās) un Zviedrijā, tika sagatavoti ziņojumi. Tajos apkopoti rezultāti par mobilizāciju, plānošanu, īstenošanu un pārraudzību, kas sarindoti pēc pašvaldības lomas plānošanā, stiprajām un vājajām vietām.

Salīdzinot Latvijas, Igaunijas, Somijas (Ālandu salu) un Zviedrijas ekspertu ziņojumus, ir pierādījumi, ka teritorijas plānošanas process ir saistīts ar hierarhisku struktūru. Ilgtermiņa attīstības dokumenti valsts, reģionālā un pašvaldību līmenī (atslēgvārdi: ilgtspēja, efektivitāte, resursi) nodrošina galvenās vadlīnijas par vietas uzturēšanu un izmantošanu. Analizējot vietējās kopienas (konkrētas piekrastes teritorijas katras valsts gadījumā) iesaistīšanu zemākajā un iedzīvotājam tuvākajā līmenī katrai personai, secināts, ka plānošanas procesa (mobilizācijas) sākumā visu iesaistīto valstu pašvaldības aicina iedzīvotājus un ieinteresētās personas (neformālās grupas) iesaistīties plānošanas procesā informācijas izplatīšanas un diskusiju dēļ. Visu valstu eksperti uzsvēra, ka informācija ir pietiekama sākotnējam plānošanas procesam. Sākotnējās plānošanas fāzes vājā puse slēpjas komunikācijas trūkumā ar neformālajām iedzīvotāju grupām.

Teritorijas plānošanas procesā vietējām pašvaldībām ir izveidota informācijas bāze (likumdošana, statistika, ziņojumi, atzinumi) plānošanas darbu veikšanai. Eksperti uzsvēra, ka trūkst informācijas par konkrētām vietām un objektiem, kā arī par to funkcionalitāti.

Ālandu salās autonomijas funkcija ļauj plaši izmantot informāciju. Neformālās grupas nepiedalās plānošanas procesā (dokumentu sagatavošanā), bet tās piedalās to plānu apspriešanā, kas jau ir izstrādāti, pirms tie stājas spēkā.

Plānu īsteno pašvaldība, sekojot izstrādātajam plānam, kā arī tiek piešķirts finansējums. Gan plāns kā plānošanas rīks, gan īstenošanas process ir publisks. Kā vājo vietu eksperti minēja ārējo faktoru ietekmi, kas var mainīt projekta gaitu, tostarp dažādus komunikācijas šķēršļus, kas var izraisīt pretrunas.

Eksperti neminēja neformālo grupu lomu plāna ieviešanas posmā. Kontroles posmā pašvaldības uzrauga plāna īstenošanu un sniedz ziņojumus, ievērojot izveidoto normatīvo

regulējumu. Šajā posmā svarīgi faktori ir informācijas pieejamība un izmantojamība. Eksperti minēja, ka procesu bija grūti uzraudzīt, taču neminēja neformālo grupu lomu kontroles procesā.

Lai labāk izprastu projekta “Coast4us” ieviešanas procesa priekšrocības un problemātiskos jautājumus, tika veikta projektā iesaistīto atbildīgo personu ekspertu aptauja. Šīs aptaujas būtība bija novērtēt formālās un neformālās telpiskās plānošanas procesa ietekmi konkrētajos piekrastes apstākļos, ņemot vērā kopienas iesaisti. Pētījumā tika izmantota nozīmīguma skala no 1 (nenozīmīgs) līdz 10 (nozīmīgs).

Neformālo grupu nozīmīguma vidējā vērtība svārstās no 4,7 līdz 7,7, kas ir diezgan plaša amplitūda. Mobilizācijas posmā nozīmības rādītāji ir tuvāki (no 6,0 līdz 7,3), ko var izskaidrot ar ciemu attīstības un ilgtspējas lielo nozīmi. Plānošanas posmā ir lielāka nozīmīguma rādītāju amplitūda (no 5,4 līdz 7,7), ko var izskaidrot ar mērķa definēšanas un plānošanas procesa neskaidrību (viedokļu koordinēšana). Īstenošanas posma nozīmīguma vidējie rādītāji ir nedaudz izkliedēti (no 5,6 līdz 6,8), ko var izskaidrot ar plānošanas procesā panākto kompromisu, taču būtu vajadzīga padziļināta izpēte. Uzraudzības posmā, kas ir cieši saistīts ar īstenošanas posmu, iegūto rezultātu nozīmīguma rādītāji ir izkliedēti (no 4,7 līdz 6,9), ko var izskaidrot ar procesa novērtējumu un rezultātu.

Pētījuma rezultāti liecina, ka mobilizēšana, plānošana, īstenošana un uzraudzība saistās ar Eriksona sadarbības modeli (Eriksson, 2018). Veiksmīga projekta pamatā ir saskaņots mērķis, kas ir iesaistīto pušu interesēs (centrālā valdība, pašvaldība un neformālās grupas). Mērķa sasniegšanai būtiska ir sadarbība plānošanā, jo iedzīvotāji bieži vien labāk apzinās situāciju un viņi būs tie, kas izmantos rezultātus. Vairāk ir nepieciešams nodrošināt ieinteresēto personu līdzdalību izstrādāto plānu īstenošanā, jo tādējādi var izvairīties no konfliktsituācijām, savukārt uzraudzība nodrošina efektīvāku resursu izmantošanu un daudz augstākas kvalitātes rezultātu. Vietējo kopienu locekļus var mobilizēt, ja mērķi ir skaidri un šie mērķi atbilst viņu interesēm. Teritorijas plānošanas procesam vajadzētu būt atvērtam, iesaistot un uzklausat vietējo sabiedrību, kas šajā pētījumā bija piekrastes kopienas. Īstenojot plānu, vietējai sabiedrībai jābūt ieinteresētai, tas sniegs labus rezultātus (un atbalstu turpmākajā sadarbībā). Labs rezultāts ir projekta progresa uzraudzība un efektīva resursu izmantošana, un to visu apstiprina neformālās grupas.

Papildus iepriekš minētajam un veiktajai salīdzinošajai pētniecībai ir acīmredzama nepieciešamība ievērot valsts tiesisko regulējumu kopienu iesaistes procesā, vienlaikus radot jaunus un mūsdienīgus risinājumus neformālai un motivētai sabiedrības iesaistīšanai teritorijas plānošanas procesā. Vienlaikus pētījumā, kurā pētītas dažādas valstis ar Baltijas jūru kā vienojošo objektu, uzsvēta piekrastes zonas teritorijas plānošanas specifika. Tāpēc attiecībā uz vispārīgiem ilgtspējības faktoriem īpaša uzmanība būtu jāpievērš dabas un vides vērtībām, ekosistēmu saglabāšanai un attīstībai utt. Šīs īpatnības, kā arī sabiedrības mainīgā un straujā izaugsme kopienas attīstības virzienā piedāvā jaunus pētniecības virzienus gan augstskolu mācībspēkiem, gan zinātniekiem.

Šajā apakšnodaļā iekļautās daļas angļu valodā pirmēji publicētas žurnāla *International Journal of Environmental Research and Public Health* rakstā *Evaluation of Formal and Informal Spatial Coastal Area Planning Process in Baltic Sea Region* (doi:10.3390/ijerph18094895).

Pamatojoties uz šajā nodaļā veikto analīzi par ciemu attīstības un vietējās kopienas darbības teorētiskajiem un tiesiskajiem aspektiem, autors secina, ka ir pietiekami daudz normatīvo aktu, kas ļauj formāli īstenot teritoriju plānošanas procesu. Tomēr ir jānorāda, ka **vietējās kopienas** vēlas un ir gatavas iesaistīties daudz neformālākā plānošanas procesā savas vietējās

teritorijas (vietas) attīstībā. Jāatzīmē arī tas, ka tieši **vietējās kopienas** dalība šajā plānošanas un plānu ieviešanas procesā radītu vislielāko pievienoto vērtību, jo tieši vietējā kopiena vislabāk pārzina savas vajadzības un labākos risinājumus to apmierināšanai.

Nemot vērā šos secinājumus, pētījuma 2. nodaļā veikta izpēte par sabiedrības iesaistes iespējām un metodēm teritorijas plānošanā, kā arī par iespējām novērtēt ciemu attīstību, lai nodrošinātu objektīvu lēmumu pieņemšanu.

2. Sabiedrības iesaiste un vietas attīstība Baltijas jūras reģionā

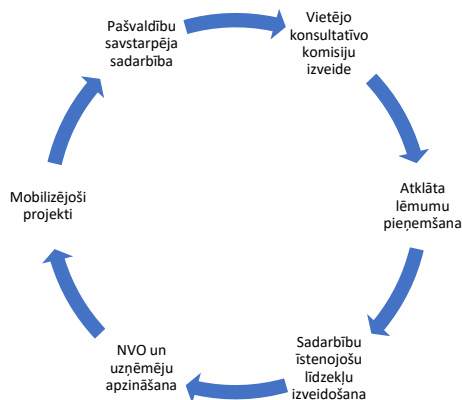
Šajā pētījuma nodaļā izvērtēts plānošanas un lēmumu pieņemšanas process, kā arī sabiedrības iesaistes process un iesaistes formāti. Tas ļauj izpildīt pētījuma uzdevumu “Izpētīt sabiedrības iesaistes un vietas attīstības plānošanas metodes un pieejas Baltijas jūras reģionā”, kas sniedz praktiskus piemērus objektīvai lēmumu pieņemšanai un novērtēšanai, kā arī izceļ praktiskus piemērus neformālai vietējās kopienas iesaistei teritorijas plānošanas procesā. Šī pētījuma nodaļa sniedz būtisku ieguldījumu priekšlikumu sagatavošanai tālākai vietējās teritorijas/kopienas attīstības plānošanas modeļa izstrādei un ieviešanai.

2.1. Sabiedrības iesaistes analīze teritorijas plānošanā

Veiktā analīze par pieņemto praksi teritorijas attīstības plānošanā kalpo par pamatu jebkuram plānošanas līmenim un ir būtisks pamats vietējās teritorijas/kopienas attīstības plānošanas līmeņa ieviešanai, kas izskatīts pētījuma turpinājumā.

Lai skaidrotu Attīstības plānošanas sistēmas likuma (Latvijas Republikas Saeima, 2008) 11. panta piekto daļu, kas nosaka, ka Ministru kabinets, ciktāl likumā nav paredzēts citādi, nosaka visu līmeņu, veidu un termiņu attīstības plānošanas dokumentus, tajos ietveramo saturu, to izstrādāšanas, apstiprināšanas, aktualizācijas, spēka zaudēšanas kārtību un darbības termiņu, kā arī attiecīgo pārskatu sniegšanas un sabiedrības līdzdalības kārtību, 2009. gada 25. septembrī ir apstiprinājis noteikumus Nr. 970 “Sabiedrības līdzdalības kārtība attīstības plānošanas procesā” (Latvijas Republikas Ministru kabinets, 2009), kur noteikts, ka sabiedrības līdzdalība ir iespējama šādos attīstības plānošanas procesa posmos:

- 1) attīstības plānošanas procesa **ierosināšana** (tai skaitā problēmu konstatēšana un politikas alternatīvu noteikšana);
- 2) attīstības plānošanas dokumenta **izstrāde**;
- 3) lēmuma **pieņemšanas** process lēmējinstiūcijas noteiktajā kārtībā;
- 4) attīstības plānošanas dokumenta **ieviešana**;
- 5) attīstības plānošanas dokumenta **ieviešanas uzraudzība un novērtēšana**;
- 6) attīstības plānošanas dokumenta **aktualizācija**.



5. att. Reģiona mobilizēšanas cikls (Vides aizsardzības un reģionālās attīstības ministrija, 2008).

5. attēlā redzamais mobilizēšanas cikls norāda darbības, kas veicamas pirms attīstības dokumentu izstrādāšanas iesākšanas, lai nodrošinātu procesa caurspīdīgumu un saprotamību tiešajiem labuma guvējiem – iedzīvotājiem un uzņēmējiem.

Pēdējo 30 gadu laikā pēc Latvijas Republikas neatkarības atgūšanas ir notikušas būtiskas pārmaiņas valsts attīstībā. Ir veidojusies demokrātiska valsts, izstrādājot jaunu normatīvo aktu bāzi valsts attīstības nodrošināšanai, kā arī lielus centienus veltot pilsoniskas sabiedrības attīstībai. Teritoriju attīstības un vietējo resursu izmantošana tiek plānota dažādos administratīvi teritoriālos līmeņos, un pēdējos gados aizvien biežāk tiek aktualizēts jautājums par zemākā plānošanas līmeņa – ciema un tā kopienas, nepieciešamību.

Līdz šim praktiskā pieredze, normatīvais regulējums, kā arī teritorijas attīstības plānošanas vadlīnijas ir bijušas vērstas uz statistikas datu izmantošanu, kā arī sabiedrības tiešu (aptaujas, sanāksmes u. c.) iesaisti lēmumu pieņemšanā. Šai pieejai Latvijas kontekstā ir būtiski trūkumi:

- ✓ valsts statistiskā informācija bieži ir pieejama tikai nacionālā, reģionālā vai atsevišķos gadījumos arī pašvaldības līmenī, taču pašvaldībām pārsvarā trūkst resursu un kompetences ilgtermiņa datu uzkrāšanā par ciemiem, apkaimēm vai kopienām;
- ✓ sabiedrības tieša iesaiste bieži aprobežojas ar noteiktas grupas, visbiežāk negatīvi noskaņotas, viedokļa pieņemšanā un vispārināšanā.

Iepriekš minētās pieejas lēmumu pieņemšanā ir būtībā uzskatāmas par subjektīvām un būtībā neanalizē plašu viedokļu dažādību. Tai pat laikā valsts, pašvaldību un privātā sektora rīcībā ir milzīgs datu apjoms, kas, pareizi to izmantojot un analizējot, ļautu radīt jaunus instrumentus objektīvu attīstības plānošanas lēmumu pieņemšanai.

Pētījumā autors analizē un apkopo informāciju, kas pieejama no valsts, pašvaldību un privātā sektora informācijas sistēmām, lai radītu jaunus lēmumu pieņemšanas instrumentus un kas ir saistīti ar esošo datu apkopošanu un analīzi zemākajā attīstības plānošanas līmenī – ciemā, apkaimē un kopienā.

Pētījuma būtiskākie secinājumi ir saistīti ar to, ka pēc būtības nav nepieciešama jaunu datu uzkrāšana, bet daudzus objektīvus lēmumus var pieņemt jau esošās uzkrātās informācijas ietvarā. Šāda informācijas izmantošana ļautu arī Latvijai sākt ieviest **viedās pilsētas** jeb *Smart City*

konceptu (1.2. apakšnodaļa) mazākajās apdzīvotajās vietās, daudz efektīvāk izmantojot esošos resursus, kā arī vienlaikus nodrošinot daudzdimensionālu ilgtspējīgu attīstību.

Šajā apakšnodaļā iekļautās daļas angļu valodā pirmēji publicētas žurnāla *Baltic Journal of Real Estate Economics and Construction Management* rakstā *Community Participation in Village Development: the Scale of Latvia* (doi:10.1515/bjreecm-2016-0007).

2.2. Sabiedrības iesaistes novērtējums vietās attīstības plānošanas procesos Baltijas jūras reģionā

Lai pamatotu un novērtētu sabiedrības iesaisti vietās (teritorijas) attīstības plānošanas procesos Baltijas jūras reģiona valstīs, 2.2. apakšnodaļā salīdzinātas dažādas Baltijas jūras reģiona valstu sabiedrības iesaistes metodes. Tas ir būtiski, jo sniedz apkopojumu par metodēm, kas izmantojamas vietējās teritorijas/kopienas attīstības plānošanas modelī. Konkrētās metodes ir vairāk iekļaujošas vietējām kopienām, salīdzinot ar formālas plānošanas metodēm.

Līdzsvars starp kopienu iesaistīšanos teritorijas plānošanas līdzdalības procesā (Baltijas jūras reģiona jūras un piekrastes teritorijās) ir jānosaka kā prioritārs jautājums. Izmantojot projekta “*Coast4us*” aktivitātes, Latvijas, Igaunijas, Somijas (Ålandu salas) un Zviedrijas partneri ķeras pie šīs svarīgās problēmas risināšanas un pienācīgi risina galvenos jautājumus, kas saistīti ar kopienas iesaistīšanos teritorijas plānošanā, kas daudzos gadījumos ir atkarīga no līdzdalības procesa.

Precīza mērķa definēšana ir sekmīgas projekta īstenošanas pamats. Mācību procesa sākumā dalībniekiem jābūt skaidrai izpratnei par mācību mērķi, un tas nozīmē, ka mērķim jāatbilst noteiktiem kvalitātes kritērijiem, un tie ir: mērķus saprot visi mācībās iesaistītie; mērķis ir sasniedzams; mērķa rezultāts ir izmērāms un pārbaudāms. Ir lietderīgi mācīties no partnervalstīm, jo tādējādi tiek veicināta kolektīvu daudzdimensiju un dinamiska pieredzes apmaiņa. Tāpēc projekts “*Coast4us*” ļauj to sasniegt ar iesaistīto pušu starpniecību, kurām ir attiecīga pieredze.

Efektīvu līdzdalību var panākt, izmantojot izglītību, piekļuvi noderīgai informācijai, jēgpilnu mijiedarbību ar valdības ierēdņiem un atklātu dialogu (*Wilkinson, 1976*). Lai gan kopienas iesaistīšanās līdzdalības procesā jau ir izstrādāta visu iesaistīto valstu plānošanas dokumentos, tā galvenokārt ir vērsta uz sabiedrības uzklauššanu, lai nodrošinātu individuālu viedokļu sadzirdēšanu. Trūkst uzmanības pievēršanas tam, lai panāktu vienprātību, veidojot kopienu konkrētā teritorijā. Būtiska sabiedrības līdzdalība ir vērsta uz procesu, nevis galīgo lēmumu (*Widman, 2002*). Visu kopienas iedzīvotāju iekļaušana nodrošina veselīgas perspektīvas, uzlabojot lēmumu pieņemšanas procesu (*Perkins Spyke, 1999*). Tāpēc tas dotu labumu vietējai teritorijai, nodrošinot informāciju par pašvaldības lēmumiem, to lielāku legimititāti un lēmumu pieņemšanas, kurā iesaistās vietējie iedzīvotāji (*Widman, 2002*).

Kopības sajūta ir sajūta, ka sabiedrības locekļiem ir piederība, sajūta, ka tie ir svarīgi cits citam un grupai, un kopīga ticība, ka viņu vajadzības tiks apmierinātas, pateicoties viņu apņēmībai būt kopā – tas ir iemesls, kāpēc sanākšana, mācīšanās un aktīva darbība bija svarīgs priekšnoteikums, lai sasniegtu projekta mērķus (*Chavis, Newbrought, 1986; Auziņš, 2019*).

Mācību process ietver secīgus soļus, kas noved pie rezultāta. Soļu skaits var atšķirties atkarībā no sasniedzamā mērķa sarežģītības un izglītojamās mērķauditorijas (ievads, apmācība, testēšana, secinājumi) (*Suryani, Schultz, Darmajanti, 2014; International learning, 2016; Russell, 2006*). Uzdevumu izpildes procesā izmantotie rīki var būt nemateriālie (organizācija, komanda, vadības stils un paņēmieni) un materiālie (informācijas tehnoloģijas un citi rīki).

Iegūtais dažādu pieeju salīdzināšanas rezultāts parāda, vai mērķis un process ir bijis pareizs, un atklāj risinājuma vājās vietas. Lai novērtētu projektā gūto pieredzi un zināšanas, tika

izmantotas dažādas stratēģijas. Morans nošķir šos divus principus, definējot vērtēšanu kā “mērījumu izmantošanu, lai noteiktu, cik labi persona vai personu grupa ir sasniegusi savus mācību mērķus”. Savukārt novērtējums “attiecas uz mērījumu izmantošanu, lai aprakstītu ieinteresēto personu sasniegumus un sniegtu ieteikumus” (Moran, 1997). Rīvs novērtējums ir vērst uz projekta vērtības un efektivitātes novērtēšanu. No otras puses, vērtēšanas rīks novērtē prakses un mācīšanās procesu, kā arī citas cilvēka īpašības, un tas ir būtiski, ja mēs vēlamies uzlabot šo procesu (Reeves, 2000). Atkarībā no uzdevuma un satura vērtēšanu var veikt pirms zināšanu un prakses epizodes, tās laikā vai pēc tās (Isaac, 2009). Iegūtais rezultāts ir svarīgs tālākam darbam ar pašvaldībām un iedzīvotājiem.

Jau iepriekš ir izpētīts un apkopots, ka ir izveidots kopienas attīstības modelis, kas pierāda, ka trīs svarīgas sastāvdaļas ietekmē indivīda līdzdalību brīvprātīgās kaimiņorganizācijās un ka kopienas sajūtai ir katalizatora loma šo trīs komponentu mobilizēšanā. Šīs trīs sastāvdaļas ir vides uztvere, sabiedrības sociālās attiecības un kontrole un iespējas kopienā iedzīvotāju uztverē (Chavis, Wandersman, 1990).

Lai plānošanas procesā iekļautu trīs iepriekš minētās sastāvdaļas, ir svarīgi sadarboties ar kopienām un izmantot dažādas metodes, lai iesaistītu sabiedrību un iegūtu jaunas zināšanas un pieredzi. Metožu izvēle var būt saistīta ar konkrētu situāciju partnervalsts reģionā – izmēģinājuma jomu, to cilvēku skaitu, kas iegūst informāciju, zināšanas un pieredzi, cilvēku iesaistes pakāpi.

Kopienas locekļu iesaistei ir plašs pasākumu klāsts (Community Engagement, 2020):

- ✓ informēšana (objektīvas informācijas sniegšana sabiedrībai, lai palīdzētu izprast problēmu, alternatīvas un risinājumus);
- ✓ konsultācijas (iegūt sabiedrības atsauksmes par analīzi, alternatīvām vai lēmumiem);
- ✓ iesaistīšanās (tieši sadarbojoties ar sabiedrību visā procesā);
- ✓ sadarbība (sadarbība partnerībā ar sabiedrību, tostarp alternatīvu izstrāde un risinājuma apzināšana);
- ✓ pilnvarošana (galīgā lēmuma pieņemšanas nodošana sabiedrības ziņā).

Projektā iesaistītie projekta partneri plaši izmanto klasiskās sabiedrības iesaistes seminārus, sanāksmes un mācības. Šīs metodes ļauj pieņemt lēmumus un kontrolēt sasniegtos rezultātus. Semināri ir paredzēti, lai apmainītos ar informāciju, to formāts var atšķirties:

- ✓ vispārīgie semināri – mērķu apspriešana, nosakot uzdevumus mērķu sasniegšanai un diskusijām (salīdzinoši liels ieinteresēto personu skaits); iespējamās garas diskusijas, konfrontācija;
- ✓ tematiskie semināri – diskusijas un konkrēta temata risinājums (dalībnieku skaits parasti ir daudz mazāks), piemēram, plānošanas objekta atlase, plāna elementu apspriešana, līdzekļu piesaistīšana, projektu izpildītāju meklēšana.

Sanāksmes, darba sanāksmes, sanāksmes ar ieinteresētajām personām – ierobežots dalībnieku skaits, konkrētu uzdevumu izpilde. Sanāksmes var notikt telpās un ārpus tām. Lai piesaistītu dalībniekus, sapulci ieteicams rīkot kādā vietā vietējā sabiedrībā, nevis svinīgā vietā (Rātsnamā utt.). Attiecībā uz sanāksmēm efektīva ir tā sauktā “agrīnā dialoga” metode, kurā sabiedrība ir iekļauta plānošanas procesa sākumposmā. Šī procedūra nedaudz atšķiras no parastās prakses, kad sabiedrība parasti tiek iesaistīta vēlāk, kad kopienas dalībnieki jau ir izstrādājuši plāna priekšlikumus.

Mācības – mazajām ieinteresēto personu grupām mācības par konkrētiem jautājumiem, piemēram, par vietas bioloģisko daudzveidību, ilgtspējīgu attīstību, detalizētu plānu un citiem jautājumiem.

Papildus klasiskajām metodēm pēdējā laikā tiek izmantotas dažādas alternatīvas metodes, lai iesaistītu sabiedrību. Šīs metodes ir:

- ✓ “Staigā un runā” (“*walk and talk*”), diskutējot par svarīgiem jautājumiem, informējot interesentus (mācības, problēmu izklāsts) konkrētā vietā, piemēram, konkrētā ciema saietā vietā, kur speciālisti skaidro pašreizējo situāciju, piedāvājot risinājumus; šī darbība parasti ir adresēta mazākai mērķauditorijai un cieši iesaistītu interesentu grupai, bet šādu darbību varētu organizēt arī plašākai auditorijai;

- ✓ neformālas tikšanās – aktīvistu neplānotas tikšanās ar ciema iedzīvotājiem, kurās tiek pārrunātas dažādas tēmas, kas saistītas ar ciema iedzīvotāju dzīves kvalitāti; alternatīvs dialoga veids ir tikšanās un diskusijas ar sabiedrību pasākumos, kas nav oficiāla dialoga sanāksmes – publiskos pasākumos vietējā sabiedrībā, piemēram, gadatirgos vai svētkos;

- ✓ pārgājienu/riteņbraukšanas trase – izstrādāta, iepriekš paziņota trase, kurā tiek parādītas un apspriestas arhitektūras vērtības, vides objekti, dabas vērtības, piemēram, vēsturisko ēku stāvoklis, ceļu infrastruktūra;

- ✓ iedvesmojošas pastaigas / braucienus ar velosipēdu varētu veikt ar ekspertiem – neliela ciema iedzīvotāju grupa (7–12 cilvēki) kopā ar ekspertu iet pa noteiktu maršrutu un pārrunā pašreizējo situāciju un problēmu risināšanas paņēmienus;

- ✓ īpaši pasākumi, piemēram, Baltijas jūras diena – forums, lai apspriestu kopīgu starptautisku rīcību Baltijas jūras piesārņojuma jomā un problēmas, kas saistītas ar normāla ekoloģiskā stāvokļa atjaunošanu jūrā (*Baltic Sea Day*, 2020); iedvesmojoša bioloģiskās daudzveidības diena – iespēja palielināt informētību par sugām un ekosistēmām, kā arī iespēja veicināt konkrētu rīcību to aizsardzībā;

- ✓ ideju vākšanas karte (domu karte) – domu karte ir režģa modelis, kurā informācija tiek glabāta, sakārtota un noteiktas prioritātes, izmantojot atslēgvārdus vai vārdus un attēlus, kas raisa atmiņas; katrs atmiņas izraisītājs (atslēgvārds vai attēls), kas iekļauts domu kartē, darbojas kā atslēga, lai “atvērtu durvis” faktiem, idejām un informācijai; grafiski ideju karte tiek parādīta kā shēma, kurā galvenais atslēgvārds (ideja vai kartes tēma) ir saistīts ar atbilstošiem jēdzieniem; parasti domu kartei ir dinamiska forma un izkātojums (*Domu kartes*, 2020; *Mind map*, 2020);

- ✓ aktivitātes ar bērniem – bērnu zīmējumu un citu ilustratīvu darbu izstāde par dabas, jūras, darba u. c. tematiku;

- ✓ iesaistīšanās tīmeklī – dažādi tīmekļa procesi, piemēram, tīmekļa vietne, tiešsaistes diskusiju forumi un emuāri, sociālo tīklu veidošana, vērtējumi un balsošana, interaktīvā televīzija.

Īss kopsavilkums par iesaistes metodēm projekta “*Coast4us*” kontekstā ir redzams 3. tabulā. Īpaši jāizceļ semināra sesijas Keekarā (*Kökar*), kurās tika izmantoti vairāki instrumenti:

- ✓ cēloņu un seku diagramma, “zivs asaka”. “Šis rīks palīdz identificēt, sakārtot un attēlot konkrētas problēmas vai kvalitātes īpašības iespējamajos cēloņos. Tas grafiski ilustrē attiecības starp konkrēto iznākumu un visiem faktoriem, kas ietekmē iznākumu”. Šāda veida diagrammu dažkārt sauc par Išikavas diagrammu, jo 1943. gadā to izgudroja japāņu kvalitātes kontroles statistiķis doktors Kaoru Išikava. Diagrammas dizains ļoti atgādina zivs skeletu. Tāpēc to bieži dēvē par zivs asakas diagrammu (*Deshpande Vivek*, 2008);

- ✓ “Sešas domāšanas cepures” tehnika nozīmē metaforisku cepuru izmantošanu diskusijās. Dalībnieki uzliek cepures, lai norādītu domāšanas virzienus. Katras cepures krāsa ir saistīta ar funkciju: baltā cepure koncentrējas uz datiem un informāciju; sarkanā cepure uz tēmu raugās no emociju, jūtu un intuīcijas viedokļa; melnā cepure izmanto pieredzi, loģiku, spriestspēju un piesardzību, lai izpētītu grūtības un problēmas; dzeltenā cepure attiecas uz ieguvumiem un vērtībām; zaļā cepure nozīmē radošo domāšanu un kustību, lai radītu jaunas idejas un risinājumus;

zilā cepure koncentrējas uz pārdomām, metazinībām un nepieciešamību pārvaldīt domāšanas procesu (Serrat, 2017);

✓ alternatīvu salīdzinājums ir grupas lēmumu pieņemšanas metode, kur fakti ir nošķirti no pieņēmumiem, lai radītu alternatīvus risinājumus, kopēji kritēriji tiek vērtēti pirms to kategorizēšanas, un gan alternatīvu stiprās puses, gan vājās vietas ir redzamas ikvienam;

✓ turklāt Kekarā tika izmantota metode, ko dēvē par “demologu” (no grieķu *demos* = cilvēki un *logos* = runa), kad visa kopiena ir iesaistījusies sarunu un klausīšanās procesā par kādu tēmu, izmantojot formālas un neformālas, mazas un lielas tikšanās, mutisko informācijas apmaiņu, sociālos tīklus, drukātos vietējos plašsaziņas līdzekļus, laikrakstus un apraides masu saziņas līdzekļus. Plāns ir iedalīts septiņās jomās, kur darbojas ar faktiem par projektu un izmanto optimismu, pesimismu, sabiedrības locekļu izjūtas un radošumu, lai pieņemtu lēmumu.

3. tabula

Sabiedrības iesaistīšanas procesa izvērtējumā gūtie secinājumi (autora izstrādāti)

Dalībnieks	Gūtie secinājumi
Latvija, analīzes objekts: Tūja, Garupe	Kopienas plānošanas procesā un attīstības plāna īstenošanā ir svarīgi iesaistīt visus kopienas dalībniekus (arī sezonas iedzīvotājus). Sabiedrības motivācija piedalīties un pievērst uzmanību alternatīvām iesaistes metodēm. Jaunas zināšanas par ĢIS (ietekmējošo faktoru slāņiem un grupām) kā informācijas nodošanas līdzekli un pamatu iedzīvotāju ilgtermiņa plānošanai no apakšas uz augšu. Sabiedrības locekļiem rūp (interesē) dabas daudzveidība, tīra vide un ilgtspējīga attīstība.
Zviedrija, analīzes objekti: Arkösund, Ekön, Bergön	Dažādu mērķa grupu iesaistīšana plānošanas procesā, izmantojot jaunu dialoga formu. Plānošanas un attīstības procesiem jābūt sabiedrībai redzamākiem. Ārējo konsultāciju izmantošana plānojuma izstrādē kopā ar zemes īpašnieku. Zināšanas par vadītāju un zinātnieku zināšanu apmaiņu, kā arī vietējo zināšanu, pieredzes iekļaušanu ainavu veidošanā.
Somija, analīzes objekti: Mariehamn un Sund, Kõkar	Jauna pieeja, lai panāktu labāku vietējo iesaisti un sadarbību starp dažādām interešu grupām. Labākas izpratnes veidošana par ekosistēmu pakalpojumiem ilgtspējīgas plānošanas procesā. Zināšanas par ekokartēšanu un sabiedrības iesaistes platformu <i>maptionnaire</i> . Ir svarīgi jau agrīnā plānošanas posmā iesaistīt vietējos iedzīvotājus, lai cilvēki saprastu, kas jā dara. Projektā jācenšas iekļaut funkcionējošas zaļās infrastruktūras, kas ir svarīgas apkaimes (ciema) plānošanai.
Igaunija, analīzes objekts: Särema	Teritorijas plānošanas procesā jāiesaista vietējās kopienas iedzīvotāji un viņu neformālās grupas, jo iedzīvotāji labāk izprot situāciju un labāk risina problēmas. Jāatrod līdzsvars starp plānošanu un aizsardzību. Darbs ar pamatskolām un sabiedrības locekļu iesaistīšana, lai novērtētu un rūpētos par vidi.

Izvērtējot pieredzes iegūšanas procesu projekta īstenošanas laikā, tika noteikti četri pamatjautājumi: 1) mērķi un uzdevumi; 2) sabiedrības iesaistīšanas metodes; 3) šķēršļi un problēmas; 4) gūtās atziņas.

Projektā galvenie pilotteritoriju mērķi ir ilgtspējīgi plāni ar holistisku perspektīvu, kur sabalansētas dažādas intereses, daba, kultūra un sociālās vērtības, kā arī vietējās prasības ekonomikas attīstībai. Projekts sniedz ieguldījumu telpiskās attīstības plānošanas procesā

pilnveidošanā, ietverot sabiedrības iesaistīšanu teritorijas plānošanā un īstenošanā. Vietējā sadarbība un iesaistīšanās ir ļoti svarīga, lai veiksmīgi īstenotu ilgtspējīgus piekrastes plānus. Salīdzinot ar pilotteritoriju attīstības plāniem saistītos galvenos uzdevumus, var secināt, ka tiem piemīt līdzība detaļu un darbības jomas atšķirībās.

Visos gadījumos dominējoša ir dažādu ieinteresēto grupu iesaiste telpiskās un kopienas plānošanas procesā un attīstības plāna īstenošanā. Plašas sabiedrības un interešu grupu iesaistīšana ekoloģiskajos, kultūras un sociālajos jautājumos, kā arī plānošanas procesā nodrošina labāku informācijas pieejamību plānošanas posmā un iespēju paust savas bažas un ierosinājumus plānošanas procesā.

Šajā apakšnodaļā iekļautās daļas angļu valodā pirmēji publicētas žurnāla *Architecture and Urban Planning* rakstā *Evaluation of Community Involvement in Participatory Process – Lessons Learned in the Baltic Sea Region* (doi:10.2478/aup-2020-0009).

2.3. Objektīva lēmumu pieņemšana

Šī apakšnodaļa sniedz akceptu par mūsdienīgu rīku un novērtēšanas metožu nepieciešamību, lai ciema plāna izstrādes posmā neformāli pieņemtie lēmumu būtu mērķtiecīgi un ilgtspējīgi. Šai pieejai palīdz objektīva lēmumu pieņemšana, kas balstās datos un zināšanās. Šajā apakšnodaļā tiek skaidrots, kā iespējams ar datiem ticami novērtēt ciema attīstību.

Pēdējo gadu aktualitāte apdzīvotu vietu un apkaimju plānošanā ir aizvien jaunu tehnoloģisko rīku izmantošana ne tikai lēmumu pieņemšanā, bet arī ekonomiski izdevīgāko risinājumu meklēšanā un sabiedrības iesaistē. Plašākā nozīmē šis process tiek saukts par *Smart City*, šaurākā nozīmē ietver gan transporta un cilvēku plūsmu organizāciju, gan infrastruktūras un ēku plānošanu/projektēšanu, gan arī pakalpojuma izvietošanu un enerģijas izmantošanu.

Nemot vērā sākotnējo veiksmīgo pieredzi, paredzams, ka tuvākajos gados šīs koncepcijas tikai aizvien ātrāk attīstīsies – jo, no vienas puses, šīs tehnoloģijas uzlabo risinājumu kvalitāti, no otras puses, samazina arī dažādas uzturēšanas un attīstības izmaksas. Vienlaikus no teorētiskā viedokļa šādu sistēmu izmantošana veicina apdzīvotu vietu ilgtspējīgu attīstību, jo tā veicina apdzīvotu vietu sociālo resursu izmantošanu – aizvien lielāku cilvēku skaita iesaistīšanu vietas attīstībai būtisku lēmumu pieņemšanā.

Šajā apakšnodaļā iekļautās daļas angļu valodā pirmēji publicētas konferences *Riga Technical University 58th International Scientific Conference “Scientific Conference on Economics and Entrepreneurship” (SCEE’2017)* tēžu krājuma rakstā *Local Economic Development Planning Tools: from Subjective to Objective Ones*.

2.4. Ciema attīstības novērtēšanas rādītāji

Šajā apakšnodaļā pētīts vietējais teritorijas plānojums Baltijas jūras reģiona ģeogrāfiskās informācijas sistēmas (GIS) izmantošanas kontekstā, kā arī aktualizēts vietējās vajadzības balstītas plānošanas pieejas viedai un ilgtspējīgai attīstībai piekrastes teritorijās.

Prioritāti ir noteikti dati, kas būtu jāapkopo un jāuzrauga, lai nodrošinātu uzticamu, ilgtermiņa un viedo attīstību noteiktās piekrastes zonas teritorijās. Vietējo vajadzību plānošanas

pieeju padziļināta izpēte tiks nodrošināta turpmākā indikatoru analīzes rīka izpētē jauniem, apzinātiem un objektīviem lēmumiem un spilgtiem risinājumiem ciemu un apkaimju teritorijas plānošanā. Tika izstrādātas divas indikatoru grupas, kas ietekmē piekastes ciemu vai apkaimes viedo attīstību.

Viens no lielākajiem izaicinājumiem datu modeļa veidošanā ir piemērotu indikatoru izvēle vietējo teritoriju analīzei. Pastāv divi principiāli veidi, kā atrisināt šo “rādītāju” problēmu. Viena no metodēm apgabala analīzei ir izmantot dažāda veida rādītājus, kas raksturo apgabalu funkcijas, struktūras un atrašanās vietas izteiksmē (*Hopkins, Bailly, Stottrup, 2011*). Šo trīs lielo grupu izmantošanai būtu nepieciešama plaša analīze, iekļaujot vēsturiskos, finanšu, sociālos, ekoloģiskos un klimata datus (*Denzin, Lincoln, 1994*). Aptverot teritorijas rādītājus, vietējai sabiedrībai sadarbībā ar pašvaldību iespējams izstrādāt ciema vai apkaimes teritorijas attīstības ilgtermiņa stratēģiju. Viens no svarīgiem rādītājiem ir sabiedriskums. Pasaules Veselības organizācija kopā ar Slimību profilakses un veselības veicināšanas centru *Healthy People 2020* iniciatīvas ietvaros noteica sociālo atbalstu un labas sociālās attiecības kā galvenos veselības un labklājības faktorus. Projekts “Publiskās telpas” parādīja, kā strādāt ar dažādām vietām (*Parker, Manson, Janssen, 2003; Public Spaces, 2016*). Lai risinātu šo izaicinājumu, vietējai sabiedrībai vissvarīgākā rādītāju grupa ir: sabiedriskums; lietojamība un aktivitāte; komforts un ārējais tēls; piekļuve un sasaiste, kas veido autora izstrādātās apakšgrupas (4. tab.).

4. tabula

Ciema vai apkaimes plānošanas ietekmējošo rādītāju grupa (autora izstrādāta, izmantojot apakšnodaļas pirmatnējo rakstu)

Ciema/apkaimes dzīve			
Sociālās aktivitātes	Lietojumi un darbības	Komforts un tēls	Piekļuve un saites
Iedzīvotāji	Vietēja uzņēmējdarbība	Noziedzības līmenis	Transporta kustība
Veselības aprūpe	Ienākumi	Sanitārijas līmenis	Sabiedriskais transports
Kopiena	Zemes vērtība	Apbūves kvalitāte	Tūrisms un velotūrisms
Brīvprātīgais darbs	Nomas cenas	Vides rādītāji	Autostāvvietas
Atpūtas vietas	Veikals	–	–
Publiskā telpa	–	–	–
Izglītība	–	–	–

Vēl viena vietējo teritoriju analīzes metode ir pievērst īpašu uzmanību vietējās teritorijas vēsturiskās attīstības analīzei, apkopot tās tradīcijas un rast ilgtspējīgu veidu nākotnē tradīciju un kultūras integrācijai ar teritorijas attīstību. Šī vietējās teritorijas īpašība var prasīt unikālu pieeju un pievēršanos dažādiem rādītājiem, kam ir liela nozīme teritorijas tēla rādīšanā un pievilcībā (Kārkliņa, 2012). Saskaņā ar ekspertu interviju rezultātiem, tika izstrādātas sešas rādītāju grupas (5. tab.):

- ✓ ekonomiskie faktori;
- ✓ sociālie faktori;
- ✓ vides faktori;
- ✓ kultūrvēsturiskie faktori;
- ✓ pašvaldības pakalpojumu grozs;
- ✓ specifiski jūras resursi (ūdeņos un iekšzemē).

Ciema vai apkaimes plānošanas ietekmējošie rādītāji (autora izstrādāti, izmantojot apakšnodaļas pirmatnējo rakstu)

Vietējās teritorijas rādītāji
<p>I. Ekonomiskie faktori vietējā teritorijā</p> <ul style="list-style-type: none"> - nodarbinātība - atalgojums - nekustamais īpašums ciemā/apkaimē (SA – nekustamā īpašuma lietošanas sezonālitate) - migrācija (SA – īpaši sezonālā migrācija) - uzņēmējdarbība vietējā teritorijā un pašvaldībā (reģionā) (SE – jomās, kas ir tieši saistītas ar jūras resursiem) - pašvaldību izdevumi sociālajam un citam atbalstam vai nodokļu atlaidēm ciemā/apkaimē (ja attiecināms; zemei vai nekustamajam īpašumam)
<p>II. Sociālie faktori vietējā teritorijā</p> <ul style="list-style-type: none"> - iedzīvotāju struktūra - tautība - mājāsaimniecības lielums - izglītības līmenis - attieksme pret ārzemniekiem vietējās teritorijās
<p>III. Vides faktori</p> <ul style="list-style-type: none"> - informācija par mājokli - vietējā teritorijā piegādāto un saražoto resursu kvalitāte un apjoms - vides informācija (SE – aizsargājamās teritorijas, jūras resursu aizsardzība un ilgtspējīga izmantošana) - īpašuma struktūra - ekoloģiskā struktūra (SE — jūras resursi un klimata pārmaiņu ietekme uz tiem)
<p>IV. Kultūrvēsturiskie faktori</p> <ul style="list-style-type: none"> - kultūras pasākumi - brīvā laika pavadīšanas iespējas vietējiem iedzīvotājiem (kafējnīcas, pastaiga, mežs, veikali, īslaicīga migrācija, mājas un sports) - tūristu skaits gadā, izlietotie finanšu līdzekļi - vēsturiskās saiknes ar teritoriju, tradīcijas vietējā sabiedrībā (pirts, zivju kūpināšana, ogu lasīšana utt.) (SE – makšķerēšanas tradīcijas, atpūtas tradīcijas) - iedzīvotāju aktivitāte un sadarbības līmenis ar pašvaldību (ciemā, ciema vecākais, <i>Facebook</i> grupa, <i>WhatsApp</i> grupa utt.)
<p>V. Pakalpojumu grozs</p> <ul style="list-style-type: none"> - taksometrs - sabiedriskais transports - reģionālie un valdības centri - spēkā esošie noteikumi - veselības pakalpojumi - veikala pakalpojumi

Vietējo teritoriju analīzei jāizvēlas metodes, kas nodrošina precīzus datus. Šiem datiem jāaptver lielākā teritorijas un lielākā iedzīvotāju daļa. Triangulācija ietver dažādu metožu un avotu izmantošanu, lai pārbaudītu no datiem izdarīto secinājumu integritāti vai paplašinātu tos. Triangulāciju kā jēdzienu plaši pieņēmuši un attīstījuši kvalitatīvo pētījumu piekritēji, kuri izmanto to kā līdzekli, lai izpētītu datu un no tiem izrietošo secinājumu “konverģenci” (*Galdeano-Gómez, Aznar-Sánchez, Pérez-Mesa, 2011*). Šī metode bieži tiek minēta kā viena no galvenajām metodēm kvalitatīvu pētījumu pierādījumu apstiprināšanai.

Datu vākšanas metodes:

- ✓ ģeotelpisko datu kartēšana – ģeodēziskā uzmērīšana uz lauka, ģeotelpiskās datubāzes izmantošana vides datu vākšanai;
- ✓ aptauja – rakstisko metožu izmantojums, sociālo formu, iespējams arī ĢIS platformas izmantošana;
- ✓ intervija – kultūras informācijas un iedzīvotāju vajadzību apkopojums;
- ✓ novērojumi – informācijas vākšana par iedzīvotāju paradumiem un uzvedību;
- ✓ satura analīze – informācijas apkopojums par valdības dienestiem un noteikumiem, valdības lēmumiem un iesniegumiem.

Informācijas datu avotu dažādība no kartēm līdz datubāzēm (6. tab.):

- ✓ ģeotelpiskās datubāzes (tekstuālās un grafiskās);
- ✓ statistikas datubāzes;
- ✓ arhīvi;
- ✓ novērojumi uz vietas.

6. tabula

Rādītāju datu avoti (autora izstrādāti, izmantojot apakšnodaļas pirmatnējo rakstu)

Ciema/apkaimes dzīve			
Sociālās aktivitātes	Lietojumi un darbības	Komforts un tēls	Piekluve un saites
Kopienas un sabiedrības reģistri	Valsts reģistri	Pašvaldības reģistri	
Iedzīvotāju reģistrs	Kadastrs	Uzņēmumu reģistrs	
Zemes vienību reģistrs	Noziegumu statistika	Dzīvojamu māju reģistrs	
Kopienas reģistri	Sabiedriskā transporta reģistrs	Satiksmes datu reģistrs	
Statistiskie dati	Ģeotelpiskās datubāzes	Geoportāls	
Nodokļu datubāzes		Nodarbinātības datubāzes	

Tika izpēta vietējo teritoriju plānošana ciemiem un apkaimēm Baltijas jūras piekrastes teritorijās ĢIS izmantošanas kontekstā, akcentējot tās aktualitāti vietējās vajadzībās balstītu plānošanas pieeju izstrādē. Lai sasniegtu mērķi, tika izstrādātas trīs rādītāju grupas (statistikas dati, ģeotelpiskā informācija un dinamiskā informācija), kas ietekmē ciema vai apkaimes plānošanu. Pētījuma autors paskaidroja cieta datu un ĢIS izmantošanas primāro ideju, izstrādājot indikatoru analīzes rīka informācijas sistēmas arhitektūru.

Rādītāji tiek izmantoti, lai, pamatojoties uz ticamiem pierādījumiem, analizētu Baltijas jūras piekrastes ciemu un apkaimes pašreizējo stāvokli un prognozētu turpmāko attīstību. ĢIS ir viens no labākajiem veidiem, kā prezentēt un apstrādāt statistisko un ģeotelpisko informāciju, izmantojot telpiskās analīzes metodes, piemēram, ģeoapstrādi. Rādītāji sniedz potenciālu ieguldījumu vietējās teritorijas sociālajā, ekonomiskajā un ilgtspējīgajā attīstībā un kvalitātes uzlabošanas izaugsmē (potenciālie nākotnes slāņi). Tas veido labākas kopienas nākamajām paaudzēm un dzīvotspējīgas kopienas, kā arī rada vietējās plānošanas pakalpojumus, pilsētu un reģionālo plānošanu. Degradēto teritoriju attīstības un zemes ierīcības plānus var pielāgot tā, lai ar ieinteresēto pušu dialoga un sadarbības palīdzību sasniegtu lielāko daļu no iedzīvotāju sagaidāmajiem rezultātiem (lai attīstītu saliedētu kopienas).

Šajā apakšnodaļā iekļautās daļas angļu valodā pirmēji publicētas žurnāla *Sustainability* rakstā *Indicators for the Smart Development of Villages and Neighbourhoods in Baltic Sea Coastal Areas* (doi:10.3390/su12135293).

Ņemot vērā to, ka pētījuma 1. nodaļā tika novērtēta ciemu, kopienu, viedo ciemu, plānošanas sistēmas būtība un to formālās, neformālās pieejas, 2. nodaļā detalizēti analizēts teritoriju plānošanas pamatprocess. Tika salīdzinātas klasiskās pieejas sabiedrības iesaistīšanai, kas skaidri iezīmēja to, ka, izstrādājot ciemu attīstības plānošanas līmeni, ir jākombinē klasiskais un normatīvi regulētais modelis ar vairāk neformālu pieeju un kopienu iesaistošām aktivitātēm. **Šī formālās un neformālās pieejas kombinācija ļauj iedzīvināt ilgtspējīgas attīstības sociālo, kultūras un garīgo dimensiju.** Vienlaikus tika pēfīta informācija par lēmumu pieņemšanu un ciemu attīstības novērtēšanas indikatoriem, kas **ļauj iedzīvināt ilgtspējīgas attīstības politisko dimensiju**, un tas nozīmē, ka sadarbības ietvarā tiek pieņemti atbildīgi lēmumi.

Pētījuma 3. nodaļā analizēta vietas ekonomika un vietas potenciāls, kas var nodrošināt ilgtspējīgas attīstības **ekonomiskās un ekoloģiskās dimensijas iedzīvināšanu.**

3. Vietas ekonomika un potenciāls

Šajā pētījuma nodaļā tiek noteikti vietējās kopienas attīstības ekonomiskie aspekti piekrastes teritorijās, kā arī pēfita kultūra kā vietas attīstības potenciāls. Šie divi aspekti noslēdz ilgtspējīgas attīstības dimensiju nozīmes izvērtējumu ciema attīstības plānošanā.

Šajā nodaļā vērtēti nosacījumi gudrai piekrastes ekonomikas attīstībai, izmantojot vietējos resursus. Papildus ir identificēti Baltijas jūras piedāvātie resursi un vēsturiskie piekrastes kultūras resursi, kas var sniegt būtisku ieguldījumu un ietvaru piekrastes ciemu plānošanā.

3.1. Piekrastes teritoriju ekonomiskās attīstības resursu izpēte

Apakšnodaļā ir sniegts skatījums par to, kāds ir ES un Latvijas redzējums par jūras resursu izmantošanu un nozīmi ekonomikas attīstībā un viedā specializācijā. Ir pētīts, kā starptautiski un nacionāli lēmumi tieši ietekmē vietējo kopienu un tās ekonomisko attīstību, jo šādi apsvērumi ir jāņem vērā ciema attīstības plāna izstrādē – ciems “dzīvo” tieši ietekmē no apkārtējās vides un savstarpējām saitēm. Tādējādi ir apkopota informācija par tiem ieviešanas mehānismiem, kas paredzēti jūras un piekrastes resursu izmantošanai efektīvai Latvijas viedās specializācijas stratēģijas (*RIS3*) ieviešanai un novērtē šo mehānismu ieviešanas iespējas Latvijas piekrastes teritorijās. Konkrētā analīze veikta pēc detalizētas dokumentu izpētes (ES līmeņa plānošanas dokumenti, nacionāla līmeņa plānošanas un politikas dokumenti, reģionālā un vietēja līmeņa plānošanas politikas dokumenti) un apkopota informācija, kas iegūta intervijās un fokusgrupās ar nacionāla, reģionāla un vietēja līmeņa ekspertiem.

Viedās specializācijas stratēģijas

ES līmenis. Atzīstot, ka ekonomiskās reālības maina pasauli ātrāk nekā globālā politika, lai veicinātu lielāku ekonomisko neatkarību un sasniegtu ilgtspējīgāku nākotni, Eiropas Komisija 2010. gadā ir apstiprinājusi stratēģiju viedai, ilgtspējīgai un iekļaujošai izaugsmei *EUROPE 2020*, kurā iekļautas trīs savstarpēji papildinošas prioritātes:

(P1) viedā izaugsme – ekonomiska izaugsme, kas balstīta zināšanās un inovācijā;

(P2) ilgtspējīga izaugsme – resursu efektivitāti rosinoša izaugsme, zaļāka un konkurētspējīgāka ekonomika;

(P3) iekļaujoša izaugsme – tādas ekonomikas veicināšana, kas veicina nodarbinātību un nodrošina sociālo un teritoriālo kohēziju.

Latvijas nacionālais līmenis. Latvijā 2013. gadā ir apstiprinātas “Zinātnes, tehnoloģijas attīstības un inovācijas pamatnostādnes 2014.–2020. gadam”, kas atbilst *EUROPA 2020* noteiktajam par nacionālās/reģionālās zinātnes un inovāciju stratēģijas viedai specializācijai izstrādi un Nacionālā attīstības plānā noteiktajam par Zinātnes, tehnoloģiju un inovācijas attīstības politiku. Latvijā pastāv arī nacionālā industriālā politika Nacionālās industriālās politikas pamatnostādnes 2014.–2020. gadam formā, kas paredz veicināt ekonomikas strukturālas izmaiņas par labu preču un pakalpojumu ar augstāku pievienoto vērtību ražošanai, t. sk. rūpniecības lomas palielināšanai, rūpniecības un pakalpojumu modernizācijai un dažādākam eksporta grozam. Latvijā ir izstrādāts ziņojums par “Viedās specializācijas stratēģijas izstrādi”, kurā definēts, ka *RIS3* paredz pētniecības un inovāciju resursus mērķtiecīgi fokusēt inovāciju prioritātēs – tajās zināšanu specializācijas jomās, kur valstij ir salīdzinošas priekšrocības vai arī eksistē aktīvi, uz kuru bāzes šādas priekšrocības var radīt. Latvijas viedās specializācijas stratēģija teritoriju līdzsvarotas attīstības veicināšanai ir noteikusi prioritāti, kas paredz teritoriju esošo resursu

apzināšanu un specializāciju, izvirzot perspektīvās ekonomiskās attīstības iespējas un virzienus, t. sk. vadošos perspektīvos uzņēmējdarbības virzienus pašvaldības teritorijās.

Latvijā identificētas šādas viedās specializācijas jomas:

- zinātnietilpīga bioekonomika;
- biomedicīna, medicīnas tehnoloģijas,
- biofarmācija un biotehnoloģijas;
- viedie materiāli un viedās inženiersistēmas tehnoloģijas;
- viedā enerģētika;
- informācijas un komunikāciju tehnoloģijas (Latvijas Republikas Ministru kabinets (2014)).

Zilās izaugsmes (*Blue Growth*) politikas apskats

Zilā izaugsme (*Blue Growth*) ir integrēta pieeja, lai stimulētu jūras ekonomiku, kas līdzīgi kā viedās specializācijas koncepts pievērš nozīmīgu vērtību inovācijām, jaunu kompāniju veidošanai, augšupejošu pieeju un vērtības ķēžu attīstību. Tā saukto zilo vērtības tīklu izveidei nepieciešama:

- 1) sadarbības tīklošanās attīstība starp piegādātājiem un veicinātājiem;
- 2) infrastruktūras dalīšanās;
- 3) zilo klāsteru un tīklu veicināšana.

Eiropas Komisija 2014. gadā izstrādājusi dokumentu “Ilgtspējīga zilā izaugsme Baltijas jūras reģionam” (*A Sustainable Blue Growth Agenda for the Baltic Sea Region*), kas piedāvā stratēģisku pieeju esošo jūras un piekrastes resursu izmantošanai, balstoties šādos pilāros:

- 1) konsistenta pieeja inovācijām, lai palielinātu ilgtspēju;
- 2) zināšanas un kvalifikācijas un klasteru attīstība;
- 3) finanšu pieejamība jūras ekonomikas sektoriem (Eiropas Komisija, 2017).

Iepriekš minēto aktivitāšu stimulēšana iniciējama no privātā sektora puses. No publiskā sektora sagaidāmas šādas aktivitātes:

- ✓ kompetenču attīstība un zināšanu dalīšanās;
- ✓ jūras klasteru izmantošana viedās specializācijas veicināšanai;
- ✓ pārrobežu sadarbības veicināšana;
- ✓ sadarbības “laboratoriju” popularizēšana.

Zilās izaugsmes koncepts ir izstrādāts Eiropas Komisijā (*DG Mare*), un tas radīts, lai izmantotu Eiropas okeānu un jūras piekrastes darba vietu radīšanai un izaugsmei. Tas ir veids, kā inovatīvā veidā attīstītu jūras aktivitātes, kas bieži vien ir atkarīgas cita no citas, kas savukārt paļaujas uz kopīgām zināšanām un infrastruktūras dalīšanu. Koncepta ieviešana ir būtiska inovāciju esamība visu sektoru kontekstā, un tā nevar tikt ieviesta atsevišķu sektoru kontekstā.

Kopumā tiek identificētas sešas zilās izaugsmes funkcijas:

- ✓ jūras transports un kuģu būve;
- ✓ pārtika, uzturs, veselība un ekosistēmas pakalpojumi;
- ✓ enerģija un izejvielas;
- ✓ atpūta, darbs un dzīvošana;
- ✓ piekrastes aizsardzība;
- ✓ jūras kontrole un uzraudzība (Eiropas Komisija, 2017).

Izpētot politiskos dokumentus un to izstrādes pamatojību, secināms, ka jūru un okeānu ekonomiskā potenciāla ilgtspējīga izmantošana ir viens no galvenajiem ES jūrlietu politikas elementiem, kurā okeāna enerģija atzīta kā viena no piecām jūras ekonomikas attīstības jomām, kas varētu sekmēt darba vietu radīšanu piekrastē.

Savukārt atbilstoši Latvijas valsts ilgtermiņa tematiskajam plānojumam Baltijas jūras piekrastes publiskās infrastruktūras attīstībai, kas izstrādāts 2016. gadā, piekrasti apraksta kā unikālu, daudzveidīgu, ilgtspējīgu un ekonomiski aktīvu telpu ar tīru ūdeni, gaisu, pludmali, mazpārveidotām ainavām un kvalitatīvu dzīves vidi (Vides aizsardzības un reģionālās attīstības ministrija, 2016).

Lai arī Latvijas plānošanas dokumenti ir saistīti ar ES politikas dokumentos norādītajām prioritātēm, Latvijā neizceļ atsevišķus *RIS3* pasākumus piekrastes izaugsmei, tomēr tā tiek skatīta kontekstā ar Latvijas *RIS3* īstenošanas atbalstu kā papildinoša iespēja. Latvijā nav izstrādāta zilās izaugsmes (*Blue Growth*) politika vai stratēģija, bet šādi plāni ir citās Baltijas jūras reģiona valstīs (reģionos), līdz ar to arī Latvijai ir jāturpina ciešāka sadarbība ar citām Baltijas jūras piekrastes teritorijām, lai veicinātu ne tikai valsts, bet arī visa ES reģiona resursu efektīvāku izmantošanu un viedu izaugsmi.

Nemot vērā iepriekš norādīto informāciju par *Smart Specialisation, Blue Growth* un jaunās ekonomikas augsmes teorijas nosacījumus (katrai valstij vai reģionam ir jāmeklē savs tehnoloģiju attīstības ceļš), pētījuma autora skatījumā, lai nodrošinātu piekrastes kopienu ilgtspējīgas attīstības ekonomikas dimensijas iedzīvināšanu, svarīgākie saimnieciskās darbības virzieni Baltijas jūras piekrastē ir šādi:

- ✓ tūrisms un atpūtas organizēšana, ietverot kūrortoloģiju;
- ✓ ostu darbība, iekļaujot jahtu uzņemšanu un apkalpošanu, kā arī kuģu un ar to saistīto iekārtu un aprīkojuma būvniecība;
- ✓ zvejniecība, zivju apstrāde, īpaši tās tradicionālie veidi;
- ✓ atjaunojamo enerģijas resursu (vēja, ūdens, viļņu, biomasas u. c.) izmantošana.

Šajā apakšnodaļā iekļautās daļas angļu valodā pirmēji publicētas žurnāla *Latvian Journal of Physics and Technical Sciences* rakstā *Identification of Maritime Technology Development Mechanisms in the Context of Latvian Smart Specialisation and Blue Growth* (doi:10.2478/lpts-2018-0029) un konferences *Conference Series: Earth and Environmental Science. Vol. 453: 5th International Conference on Green Materials and Environmental Engineering (GMEE2019)* pilna apmēra rakstā *Sea Natural Resource Potential for Blue Growth Policy Implementation in Baltic Sea Region* (doi:10.1088/1755-1315/453/1/012033).

3.2. Kultūras kā vietas ekonomiskās attīstības priekšnosacījuma izpēte

Šajā pētījuma apakšnodaļā autors veic salīdzinošu pētījumu trīs vietējās kopienās – Latvijā (Carnikavas ciems), Zviedrijā (*Hults Bruk* ciemā) un Ukrainā (*Vygoda* ciemā), lai pārliccinātos par kultūras vērtību un kultūras mantojuma nozīmīgumu vietējās kopienas un vietējās ekonomikas attīstībā. Šīs apakšnodaļas uzdevums ir apskatīt ilgtspējīgas attīstības kultūras dimensijas aspektus.

Konkrētās teritorijas (ciemi) ir izvēlēti, lai pārbaudītu ilgtspējas dimensiju nozīmību dažādos ekonomiskās attīstības stadijās (līmeņos) esošās valstīs, vienlaikus saglabājot nosacījumu, ka ciems atrodas tuvu ekonomikas attīstībai nozīmīgai vietai (pilsētai).

Kultūras nozīme ilgtspējīgas attīstības kontekstā ir norādīta ne tikai kultūras dimensijā, bet arī ekonomiskā dimensijas ietvarā.

Tai pat laikā jaunās ekonomikas augsmes teorijas (*Audretsch, Keilbach, Lehmann, 2006*) pamatā ir doma par to, ka katrai valstij vai reģionam ir jāmeklē savs tehnoloģiju attīstības ceļš. Ir jāasnedz konkrētajam vides, dabas un cilvēkresursu zināšanu līmenim atbilstošs tehnoloģiskais progress, jo citu reģionu tehnoloģiju pielāgošana nozīmē vecu, jau izmantotu ideju atkārtošanos,

bet mūsdienu pircēju interesē tikai inovatīvi, efektīvi un pēc iespējas lētāki produkti vai pakalpojumi. Tomēr šādu rezultātu var sasniegt tikai ar jaunu ideju, tehnoloģiju un efektīvu materiālu izlietojumu un cilvēkresursu vadību. Līdz ar to tieši lokālā līmenī iespējams sniegt atbalstu uzņēmējdarbības attīstībai, veidojot zināšanas, cilvēkkapitālu un ilgtspējīgus resursu izmantošanas veidus.

Promocijas darba izstrādes gaitā autors veicis starptautisku pētījumu par kultūras nozīmi vietējās kopienas un vietējās ekonomikas attīstībā, tai skaitā novērtējot sava tehnoloģiskā ceļa veidošanas iespējas, kas balstās vietas kultūras vērtībās.

Autors izvēlējās trīs apdzīvotas vietas Eiropā, lai uz vietas noskaidrotu un novērtētu vietējo ekonomisko situāciju, kā arī to kultūras iezīmes un mantojumu, lai gūtu viedokli un pārliecību par kultūras dimensijas ietekmi uz vietējās ekonomikas attīstību. Autors sniedz ieskatu vietu izvēles procesā, kā arī pārskatu par būtiskāko iegūto informāciju.

Autors pētījuma veikšanas vietas izvēlējās pēc šādiem apsvērumiem:

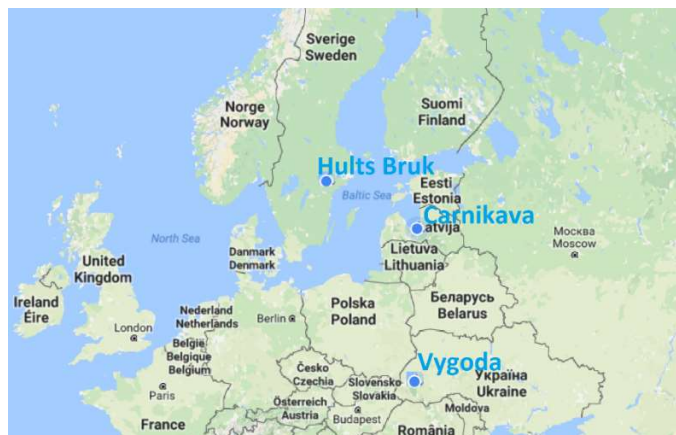
- ✓ pētāmajai kopienai ir jāatrodas sasniedzamā attālumā no pētnieku mītnes vietas, respektīvi Eiropā;
- ✓ pētāmajai kopienai ir jāatrodas dažāda attīstības līmeņa valstīs, kurām nav izteikta kopīga kultūras mantojuma;
- ✓ pētāmajai kopienai ir jābūt līdzīgam ģeogrāfiskam novietojumam – teritorijai ir jābūt izvietotai tiešā lielās apdzīvotas vietas tuvumā.

7. tabula

Pētāmās teritorijas izvēles faktori (autora izstrādāti)

Valsts attīstības līmenis pēc GDP (EUPEDIA, 2019)	Lielākā apdzīvotā vieta	Kultūras iezīmes (Encyclopædia Britannica)	Izvēlētā teritorija
Zviedrija – augsti ekonomiski attīstīta valsts	Norčepinga un reģions	Piederība Skandināvijas kultūrai	<i>Hults Bruk village</i>
Latvija – vidēji ekonomiski attīstīta valsts	Rīga un reģions	Piederība Baltijas reģiona kultūrai	<i>Carnikava village</i>
Ukraina – salīdzinoši zemi ekonomiski attīstīta valsts	<i>Dolyna</i> un reģions	Piederība slāvu kultūrai	<i>Vygoda village</i>

Pētījuma uzskatāmībai izvēlētās teritorijas attēlotas Eiropas kartē (6. att.).



6. att. Pētījuma teritoriju izvietojums (autora izstrādāts).

Vietu ekonomikas un kultūras izpētes rezultāti (“uz vietas”)

Hults Bruk ciems atrodas Zviedrijā un ir izvietots nelielā attālumā no Noršēpingas pilsētas, atrodoties tās areālā. Ciemā praktiski nav ekonomiskās aktivitātes, jo ciema iedzīvotāju skaits ir ļoti neliels. Tai pat laikā ciema vēsturiskā ekonomiskā attīstība ir notikusi, balstoties kalēja amatā (jau no 1697. gada). Šobrīd ciema lielākais darba devējs ir uzņēmums ar tādu pašu nosaukumu kā ciems.

Mainoties dažādām ekonomiskajām situācijām, kalēja vēsturiskais amats ir saglabājis savu nozīmību, jo galvenais ciemā ražotais produkts ir cirvji, kas tiek eksportēti uz daudzām pasaules valstīm.

Bez kalēja amata izmantošanas produkta ražošanā vietējā kopiena kalšanu uzskata par savu pastāvēšanas pamatu, tādēļ ar ciema iedzīvotāju iniciatīvu tiek attīstīts kalēju amata centrs. Šis centrs kalpo gan par kopienas identitātes un socializācijas centru, gan arī sociālā atbalsta centru, jo sociālās atstumtības riskam pakļautajām personām tiek sniegta iespēja apgūt vēsturisko amatu.

Ciema iedzīvotāji uzskata, ka kalēja amats un kalēju izstrādātie produkti ir viņu kopējā identitāte, kas nākotnē ļaus attīstīt tādas papildinošās ekonomiskās jomas kā tūrisms un ar to saistītie pakalpojumi.

Carnikavas ciems atrodas Latvijā un ir izvietots nelielā attālumā no Rīgas pilsētas, atrodoties tās areālā. Ciemā ir ļoti neliela ekonomiskā aktivitāte, jo tā ģeogrāfiskās atrašanās dēļ pēdējā desmitgadē tas audzis imigrācijas dēļ, kas saistīts ar galvaspilsētas iedzīvotāju vēlmi pārvietoties uz dzīvi privātmājās. Šīs migrācijas rezultātā jaunie iedzīvotāji turpina darba gaitas galvaspilsētā, bet dzīvo Carnikavas ciemā.

Par ciema vēsturisko attīstības pamatu ir kļuvusi zvejniecības nozare, kurā gan nav nodarbināts liels darbinieku skaits, bet par vietējo iedzīvotāju piederības simbolu ir kļuvis zvejniecības procesa rezultāts – nēģis. Valsts līmenī šis ciems pirmām kārtām asociējas ar konkrēto pārtikas produktu.

Pateicoties konkrētā produkta popularitātei, arī vietējā kopiena savu atpazīstamību un kopienas pastāvēšanas pamatu būvē uz vēsturiska amata un produkta bāzes. Tai skaitā vietējā kopiena ir panākusi, ka “Carnikavas nēģis” ir ieguvis ģeogrāfiskās izcelsmes produkta aizsardzības statusu ES līmenī.

Šī ciema gadījumā iedzīvotāji uzskata, ka zvejnieka amats ir pietiekami sarežģīts un tā attīstība nenotiks, bet zvejnieku izstrādātie produkti ir viņu kopējā identitāte, kas jau šobrīd veicina tūrismu un ar to saistītos pakalpojumus, tai skaitā arī kultūras dzīvi, piemēram, ikgadējo Nēģu svētku ietvaros.

Vygoda ciems atrodas Ukrainā un ir izvietots nelielā attālumā no *Dolyna* pilsētas, atrodoties tās areālā. Ciemā ir ļoti neliela ekonomiskā aktivitāte, jo tā ģeogrāfiskās atrašanās dēļ uzņēmējdarbības attīstība un darba vietas tiek nodrošinātas pilsētā vai arī vienā no apgabalam tipiskajām nozarēm – mežsaimniecībā.

Ciema iedzīvotāji par savu attīstības stūrakmeni uzskata vēsturiski saglabājušos šaursliežu dzelzceļu, kas ikdienā nodrošina viesu izklaidēšanu. Sākotnēji vilciens ir bijis saistīts ar cilvēku un kravu pārvadāšanu kalnainajā reģionā, bet šobrīd tas kalpo izklaidēšanas vajadzībām.

Vietējā kopiena jau šobrīd ir sapratusi, ka šis vēsturiskais objekts ir interesants viesiem un tūristiem, tādēļ ar ES līdzekļu atbalstu ir izveidots tūrisma centrs ar vilciena muzeju, kā arī šajās telpās tiek tirgoti vietējo ražotāju produkti un izstrādājumi. Vienlaikus pieaugošā viesu un tūristu plūsma veicina aizvien jaunu papildinošo pakalpojumu attīstību, piemēram, sabiedriskās ēdināšanas iestādes.

Visās izpētes teritorijās kultūras dimensijai ir bijusi nozīme šodienas ciema kopienas identitātē un ekonomiskajos procesos. Autors atzīmē, ka kultūras mantojums ekonomiskajos procesos var izpausties dažādi – gan vēsturiskos produktos, gan pakalpojumos, gan arī vēsturisku objektu transformācijā šodienas pakalpojumu sniegšanai. Tādējādi kultūras dimensijai var būt gan tieša ietekme ekonomiskajā attīstībā, piemēram, turpinot ražot konkrētus produktus, gan arī netieša ietekme, veicinot papildinošu preču vai pakalpojumu ražošanu un pārdošanu, bet pašu vēsturisko kultūras faktoru izmantojot kā vietas identitāti un “magnētu”.

Šajā apakšnodaļā iekļautās daļas angļu valodā pirmēji publicētas konferences *2017 2nd SSR International Conference on Social Sciences and Information* rakstu krājuma *Advances in Social and Behavioral Sciences. Vol. 17* rakstā *The Basis for Sustainable Place-based Economic Development: The Role of Cultural Heritage in Latvia, Sweden and Ukraine* (doi:10.26602/asbs.2017.17.32).

3. nodaļa noslēdz visu ilgtspējīgas attīstības dimensiju ieviešanas iespēju novērtējumu ciemu attīstības plānošanas procesā. Pētījuma gaitā noskaidrota katras ilgtspējīgas attīstības dimensijas nozīmes un lietošanas iespējas tieši ciemu plānošanas līmenī, kas izceļas ar visaugstāko sabiedrības iesaistes līmeni un neformālas plānošanas metožu pielietojumu. Visas dimensijas ir nozīmīgas vietējās teritorijas/kopienas attīstības plānošanas modeļa priekšlikuma izstrādei.

Pētījuma noslēguma nodaļa veltīta spēcīgas kopienas nozīmei globālu izaicinājumu kontekstā, tajā identificēti aprobācijas rezultāti ciema attīstības plānošanas pieredzei Latvijā.

4. Spēcīgas kopienas darbības ietekme uz reģionālo attīstību

Pētījuma izstrādes laikā pasauli pārņēma nebijuši ārkārtas apstākļi un tika izsludināta pasaules līmeņa pandēmija, tāpēc šajā nodaļā noteiktas spēcīgu vietējo kopienu priekšrocības globālu izaicinājumu kontekstā un analizēti izstrādātā ciema attīstības plāna izmēģinājuma rezultāti Latvijā.

4.1. Spēcīgu vietējo kopienu priekšrocības globālās pandēmijas laikā

Šajā apakšnodaļā analizētas vietējās sabiedrības iespējas pirmajā Latvijas valdības noteiktajā *Covid-19* ierobežojumu periodā. Papildus noteikts, vai šajā periodā ir iespējams izmantot viedo ciemu un spēcīgu kopienu priekšrocības. Pētījumā aprakstītā vietējā kopiena analizēta par Latvijas teritorijas ciemiem, kas atrodas Rīgas jūras līča piekrastē.

Latvijā uz trim mēnešiem tika noteikti vairāki ierobežojumi: attālināts darbs, ja iespējams; tālmācība skolās; distances ievērošana, pulcēšanās ierobežojumi līdz pieciem cilvēkiem. Tajā pašā laikā tika samazināti vai atcelti dažādi pakalpojumi, piemēram, sabiedriskais transports, izglītības pakalpojumi, kultūras pakalpojumi u. c. (Latvijas Republikas Ministru kabinets, 2020). Turklāt iedzīvotāji sāka plaši izmantot digitālās tehnoloģijas un to sniegtās iespējas savstarpējai komunikācijai, skolu un augstskolu mācību procesiem, nepieciešamo preču iegādei un uzņēmējdarbības vadīšanai. Autors atzīmē, ka daudzi no šiem procesiem ir iekļauti arī viedās kopienas jēdzienā un attiecināmi uz ekonomisko procesu vadīšanu un primāro vajadzību nodrošināšanu. Ir jānorāda, ka spēcīgas kopienas vairāk izmantoja mijiedarbības aktivitātes, lai uzlabotu pašaprūpes un savstarpējās palīdzības pakalpojumus.

Pasaules Veselības organizācija attiecībā uz *COVID-19* izplatību sniedz vienkāršus piesardzības pasākumus, kas galvenokārt saistīti ar roku mazgāšanu, distancēšanos, labu elpošanas higiēnu u. c. (*WHO*, 2020).

Šīs noteiktās vadlīnijas liek cilvēkiem būt uzmanīgiem un ierobežot savas aktivitātes līdz minimumam, tiekoties ar citiem. Ņemot vērā iepriekš minēto, indivīdi zaudē tiešu kontaktu uzņēmējdarbības un sociālās komunikācijas ietvaros. Rezultātā kopienas zaudē savu tradicionālo pieeju tiešai sociālajai un ekonomiskajai saziņai starp kaimiņiem vai kaimiņu kopienām.

Latvija atsevišķi ar Ministru kabineta 2020. gada 12.marta rīkojumu Nr. 103 noteica atsevišķus ierobežojumus izglītībai, pulcēšanas iespējām, starptautiskajiem pasažieru pārvadājumiem, veselības aprūpei u. c. Galvenie ierobežojumi (Latvijas Republikas Ministru kabinets, 2020):

- ✓ valsts un pašvaldību iestādēm izvērtēt un iespēju robežās nodrošināt klātienē pakalpojumu sniegšanu attālināti;
- ✓ pārtraukt mācību procesa norisi klātienē visās izglītības iestādēs, pārtraukt visa veida izglītības procesu klātienē formā īstenošanu ārpus izglītības iestādēm un nodrošināt mācības attālināt;
- ✓ atļaut šādos organizētajos pasākumos pulcēties gan iekštelpās, gan ārpus telpām līdz 25 personām, nodrošinot epidemioloģisko un sociālo distanci;
- ✓ noteikt, ka kultūras, reliģisko pasākumu, izklaides, sporta un citu atpūtas vietu norises vietas darbu iesāk ne agrāk par plkst. 6.30 un beidz ne vēlāk par plkst. 24.00;
- ✓ personām, kuras Slimību profilakses un kontroles centrs norādījis kā *Covid-19* infekcijas slimības kontaktpersonas, jānodrošina pašizolācija dzīvesvietā (mājas karantīna) 14 dienas, lai varētu sazināties un sadarboties ar ģimenes ārstu un citām ārstniecības personām;

✓ no 2020. gada 17. marta pārtraukt pasažieru starptautiskos gaisa, jūras, autobusa un dzelzceļa pārvadājumus, izņemot pasažieru pārvadājumus ar valsts gaisa kuģiem un militāro transportu, kā arī privātos un darījumu lidojumus (ar ne vairāk kā pieciem pasažieriem); no 2020. gada 15. maija atsākt starptautiskos gaisa, jūras, autobusa un dzelzceļa pasažieru pārvadājumus uz/no Lietuvas un Igaunijas.

Šie ierobežojumi praktiski apturēja klātienes tikšanās ārpus vienas mājsaimniecības un radīja nepieciešamību pielāgoties darbam un sociālajai darbībai.

Saskaņā ar Viedo kopienu rokasgrāmatu (Viedā kopienu rokasgrāmata, 1997) **viedā kopiena** ir kopiena, kurā pašvaldību, uzņēmējdarbības, izglītības, veselības aprūpes iestāžu locekļi un sabiedrība izprot informācijas tehnoloģiju potenciālu un veido veiksmīgas alianses, lai strādātu kopā un izmantotu tehnoloģiju kopienas pārveidošanai ievērojamā un pozitīvā veidā.

Viedais ciems un uzņēmējdarbība

Viedais ciems ir salīdzinoši jauns jēdziens ES politikas veidošanas jomā. Jauns viedā ciema jēdziens attiecas uz lauku apvidiem un kopienām, kas izmanto savas esošās stiprās puses un priekšrocības, kā arī attīsta jaunas iespējas. Viedajā ciemā tradicionālie un jaunie tīkli un pakalpojumi tiek uzlaboti, izmantojot digitālās, telekomunikāciju tehnoloģijas, inovācijas un zināšanas iedzīvotāju un uzņēmumu labā. Digitālās tehnoloģijas un inovācijas var veicināt dzīves kvalitāti, nodrošināt augstāku dzīves līmeni, sabiedriskos pakalpojumus iedzīvotājiem, labāku resursu izmantošanu, mazāku ietekmi uz vidi un jaunas iespējas lauku vērtību ķēdēm attiecībā uz produktiem un uzlabotiem procesiem. Viedā ciema jēdziens nepiedāvā vienu risinājumu, kas der visiem. Tas ir teritoriāli jutīgs, ņemot vērā attiecīgās teritorijas vajadzības un iespējas, kā arī stratēģiski vadīts, t. i., atbalstīts ar jaunām vai esošajām teritoriālajām stratēģijām. Tehnoloģijas ir svarīgas kopā ar investīcijām infrastruktūrā, uzņēmējdarbības attīstībā, cilvēkkapitālā, kapacitātē un kopienas veidošanā. Laba pārvaldība un iedzīvotāju iesaistīšana ir arī galvenie faktori. Viedais ciems parasti pievērš uzmanību e-pratības prasmēm, piekļuvei e-veselībai un citiem pamatpakalpojumiem, inovatīviem risinājumiem vides problēmu risināšanai, aprites ekonomikas izmantošanai lauksaimniecības atkritumos, vietējo produktu popularizēšanai, ko atbalsta tehnoloģijas un IKT, viedās specializācijas lauksaimniecības produktu projektu ieviešanai un izmantošanai, tūrisma un kultūras aktivitātēm utt. Viedā ciema jēdziens aptver cilvēku apmetnes lauku apvidos, kā arī apkārtējās ainavas (Eiropas Komisija, 2020).

Svarīgi atzīmēt Kopējo lauksaimniecības politiku (KLP), kas ietver sešas prioritātes, kur pēdējā prioritāte (Nr. 6) apspriež sociālo iekļaušanu un ekonomisko attīstību. Šī prioritāte ir iedalīta trīs grupās: dažādošanas veicināšana; mazo uzņēmumu izveide un attīstība; darba vietu radīšana, vietējās attīstības veicināšana lauku apvidos un informācijas un komunikācijas tehnoloģiju (IKT) pieejamības, izmantošanas un kvalitātes uzlabošana lauku apvidos (Eiropas Komisija, 2020/2).

Savukārt privātā sektora uzņēmumiem ir jāgūst peļņa, lai izdzīvotu. Galvenais jautājums ir, vai pieprasījuma līmenis ir pietiekams, lai pamatotu biznesa piedāvājumu – vai ienākumi būs pietiekami, lai segtu izmaksas un gūtu pietiekami daudz peļņas, lai atmaksātu aizdevumus un atalgotu citus finansējuma avotus. Lieliem uzņēmumiem, kas darbojas valsts vai globālā mērogā, atbilde bieži ir “nē”, viņi labāk var strādāt citur. Mazākiem, vairāk teritoriāli iesakņotiem uzņēmumiem ir četras galvenās stratēģijas (8. tab.) (Eiropas Komisija, 2020/3).

Uzņēmējdarbības galvenās stratēģijas lauku apvidos (Eiropas Komisija, 2020/3)

Daudzpakalpojumu centri	Mobilie pakalpojumi
Daudzpakalpojumu centru izveidošana ir viens no veidiem, kā lauku pakalpojumu uzņēmumi var izdzīvot vai pat attīstīties. Tos var plānot, kā tas notiek Somijas un Beļģijas laukos, centri var attīstīties organiskāk, piemēram, kad garāža pārņem pasta lomu un pēc tam attīsta pārtikas mazumtirdzniecības funkciju.	Tie var sniegt būtiskus pakalpojumus vietējām kopienām, vienlaikus nodrošinot mazo uzņēmumu dzīvotspēju, palielinot to klientu bāzi. Piemēri: mobilie zobārsti; veterinārārsti; ēku apkope un dažāda veida veikali.
Digitālā dažādošana	Īsas piegādes ķēdes
Arhitekti, juristi, konsultanti un citi profesionāļi var sniegt plašu pakalpojumu klāstu, izmantojot digitālos risinājumus.	Tā jau sen ir bijusi adaptīva stratēģija maziem pārtikas uzņēmumiem, lai iegūtu konkurētspēju.

Ar *Covid-19* saistītie ierobežojumi, kas paredzēja palikt mājās, daļu iedzīvotāju “izdzina” uz laukiem. Latvijā nereti papildus dzīvoklim pilsētā iedzīvotājam ir arī īpašums vai vasarnīca laukos.

Lai varētu strādāt, piedalīties lekcijās un nodarbībās, gandrīz visi bija spiesti segt savus IT robus (*gaps*), īpaši attālinātajā saziņā.

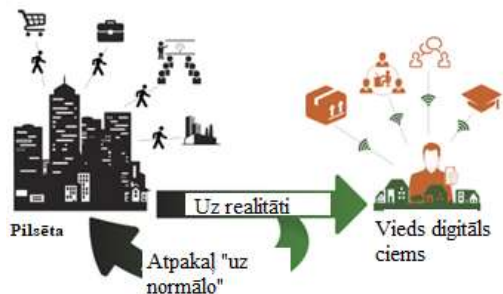
Dažu dienu laikā pēc ārkārtas situācijas izsludināšanas dzīvē tika īstenotas teorētiskās stratēģijas:

- ✓ digitālā dažādošana – izrādījās, ka valsts darbinieki, skolotāji, mācībspēki, arhitekti utt. tiešām var strādāt no mājām;
- ✓ lauksaimnieki un vietējie restorāni iemācījās veidot tīmekļa vietnes un sāka piegādāt produktus kaimiņiem uz mājām, stiprinot un ieviešot praksē īsās piegādes ķēdes;
- ✓ lielāki piegādes uzņēmumi paplašināja piegādes zonas no Rīgas priekšpilsētas uz visu Latvijas teritoriju; samazināja piegādes cenas; iesāka apkalpošanu maziem, vienas ģimenes pasūtījumiem un papildināja preču klāstu ar pirmās nepieciešamības precēm, piemēram, dezinfekcijas līdzekļiem, izveidojot īpašu daudzpakalpojumu centra un mobilā pakalpojuma (mobilā daudzpakalpojuma) kombināciju.

Līdz ar to ir svarīgi saprast, vai **vieda** un **spēcīga kopiena** var palīdzēt pārvarēt krīzes periodus.

Atvērtie jautājumi

1. Vai pēc *Covid-19* ierobežojumu beigām cilvēki un dienesti paliks laukos vai atgriezīsies pilsētā (7. att.)?
2. Kādi instrumenti nepieciešami veiksmīgai darbībai attālināti un vai viedā ciema koncepts var palīdzēt?
3. Vai vieds un spēcīgs ciems vai kopiena ar augstāku attīstības līmeni var labāk pārvarēt krīzes situācijas?



7. att. Covid-19 ierobežojumu izraisītās izmaiņas (autora izstrādātas).

Dr. Bernijs Džounss apspriež viedā ciema koncepciju: “Diemžēl šodien pasaulē joprojām ir aptuveni 1 miljards cilvēku bez piekļuves elektrībai. 3 miljardi joprojām gatavo ēdienu uz bīstamām un neefektīvām plīts virsmām. Daudzi no viņiem dzīvo attālās lauku kopienās. Kamēr šādām kopienām nav pieejami moderni energopakalpojumi, var panākt tikai nelielu progresu, lai attīstītu to ekonomiku un uzlabotu dzīvi” (*New thinking*, 2020).

No digitālā viedokļa Latvijā nav būtisku šķēršļu kopienām un iestādēm, lai pārvaldītu un sazinātos digitālā formātā. Ciemiem nepieciešama sadarbība savā starpā un arī starp iestādēm. Sadarbība nodrošinātu gan resursu apzināšanu, gan trūkstozo resursu nodrošināšanas plānošanu.

Piekrastes ciemu ikdienas dzīves pamatā ir tūrisma pakalpojumi vai atpūtas vietas ārpus pilsētas. Viedie pakalpojumi veiksmīgi nodrošina resursu pārvaldību, uzņēmējdarbības aktivitātes, kultūras pasākumu popularizēšanu un ziņojumu dēļa iespējas.

Atvērtais jautājums

Vai sabiedrisko dzīvi var nodrošināt attālināti ilgstoši; kur realitātē ir vieta sociālām un kultūras aktivitātēm?

Lai gūtu pilnu priekšstatu par kopienas un ciemu aktivitātēm Covid-19 pandēmijas laikā, ir svarīgi apvienot viedā ciema un spēcīgas kopienas konceptus, kuru pamatā ir mijiedarbības skala, jo digitālus risinājumus nevar novērtēt, neņemot vērā cilvēku sadarbības faktoros.

Lai atbildētu uz iepriekš uzdotajiem jautājumiem, pētījuma autors apkopoja informāciju par to, kā viedās un spēcīgās kopienas stiprās puses ir ietekmējušas kopienas/ciema spēju reaģēt uz Covid-19 pandēmijas radītajiem ierobežojumiem un problēmām Latvijā (9. tab.).

9. tabula

Viedo ciemu un spēcīgu kopienu priekšrocības Covid-19 pandēmijas laikā
(autora izstrādātas)

Covid-19 pandēmijas ierobežojumu lauks	Ietekmētās ciema vai kopienas grupas (iedzīvotāji, uzņēmēji, vietējā administrācija)	Viedā ciema koncepts un kopienas mijiedarbības stiprās puses kā reakcija uz ierobežojumiem
Sabiedriskā transporta ierobežošana vai pakalpojuma apturēšana	Iedzīvotāji, īpaši tie, kuri sabiedrisko transportu izmanto, lai nokļūtu darbā vai saņemtu pakalpojumus	Attālināta darba iespējas, kas, neskatoties uz ierobežojumiem, ļāva veikt darbu un saņemt atalgojumu.

		IT rīki, lai nodrošinātu savstarpēju sadarbību privātā transporta koplietošanā.
Izglītības pakalpojumu ierobežošana vai pakalpojuma apturēšana	Pilsoņi kā pakalpojumu saņēmēji Uzņēmēji kā bērnu vecāki Pašvaldības kā pakalpojumu sniedzēji	Tika ieviesti daudzi dažādi IT un TV rīki, lai nodrošinātu tālmācību ar vismazāko iespējamo ietekmi uz izglītības kvalitāti. Pietiekama interneta kvalitāte un datoru skaits ļāva vienlaikus strādāt un mācīties attālināti vienā mājsaimniecībā, kas pēc iespējas mazāk ietekmēja uzņēmējdarbību.
Kultūras pakalpojumu ierobežošana vai pakalpojuma apturēšana	Pilsoņi kā pakalpojumu saņēmēji Pašvaldības kā pakalpojumu sniedzēji	Tika ieviesti daudzi dažādi IT un TV rīki, lai nodrošinātu kultūras pakalpojumus attālināti, kā arī iespēju robežās radošo amatieru procesu.
Veselības aprūpes pakalpojumu ierobežojumi vai pakalpojumu apturēšana	Pilsoņi kā pakalpojumu saņēmēji Uzņēmēji kā bērnu vecāki Pašvaldības kā pakalpojumu sniedzēji	Tika ieviesti dažādi telefona pakalpojumos un IT pakalpojumos balstīti risinājumi, kas ļāva saņemt pakalpojumus attālināti bez pulcēšanās un pārvietošanās. Vienlaikus jāatzīmē, ka veselības nozarē tikai daži pakalpojumi tiek sniegti kā e-veselības pakalpojumi to specifikas dēļ.
Izolācija un karantīna , pilnīgs aizliegums pārvietoties ārpus dzīvesvietas	Pilsoņi kā pašizolācijai vai karantīnai pakļautas personas Uzņēmēji kā darba devēji	Pašpalīdzības iespējas, koncentrējoties uz spēju sniegt palīdzību un atbalstu pašizolētiem vai inficētiem kopienas locekļiem, izmantojot attālus (bezkontakta) rīkus un spēcīgu saliedētu kopienu (šī pandēmija gandrīz ikvienu piespieda pašizolēties vai ārstēties mājās).
Aizliegums pulcēties sabiedriskās vietās, tostarp socializācijas punktos (piem., kafējnīcās)	Iedzīvotāji kā labuma guvēji Uzņēmēji kā pakalpojumu sniedzēji	Latvijā tūrisma un pakalpojumu nozarei bija iespēja piesaistīt vairāk vietējā tirgus, kas ilgtermiņā atstātu iespaidu uz paradumiem – tūrisms un atpūta bija iespējama arī vietējā reģionā un Latvijā kopumā (drošums). IT rīki interešu grupu sanāksmēm.
Ierobežojumi ikdienas pakalpojumu sniegšanai	Iedzīvotāji kā labuma guvēji Uzņēmēji kā pakalpojumu sniedzēji	Bija iespēja strauji pārorientēt tiešo pārdošanu uz digitālo pārdošanu ar bezkontakta piegādēm gan pakalpojumu, gan tirdzniecības sektorā.
Ieteikums strādāt attālināti, masveida inficēšanās darba vietās	Iedzīvotāji kā darbinieki Uzņēmēji kā darba devēji	Iespēja strādāt attālināti, izmantojot IT rīkus, jo darbiniekiem ir ierobežota piekļuve sabiedriskajam transportam, ierobežota piekļuve darbam, jo bērniem jābūtu mājās, tostarp samazināts darbinieku savstarpējās inficēšanās risks.

Pētījumā analizētā informācija liecina, ka *Covid-19* pandēmijas apstākļos ir notikusi gan sabiedrības paradumu maiņa, gan dzīvesvietas maiņa uz teritorijām ārpus pilsētām, un tika atzīts,

ka sabiedrība lielā mērā ir gatava pārejai uz attālināto darbu un tālmācību. Apkopojot informāciju par mainīgajiem iedzīvotāju paradumiem, valsts ierobežojumiem un viedā ciema koncepta stiprām pusēm, tika konstatēts, ka viediem ciemiem un kopienām bija ievērojams ieguvums, jo vietējā kopiena jau sen izvēlējās digitālās attīstības ceļu, tāpēc pielāgošanās attālinātajam darbam, tālmācībai, kultūras un sabiedriskajiem pakalpojumiem lielas neērtības nesagādāja. Vienlaikus sabiedrība varēja turpināt savstarpējo saziņu un organizēt pašpalīdzību. Paliek liels jautājums pēc *Covid-19* pētījumiem: vai cilvēki, kuri izvēlējās pārcelties no pilsētas pandēmijas laikā, izvēlēsies palikt laukos vai atgriezties pilsētā? Tas var būtiski mainīt vietējo kopienu attīstību gan potenciāli pozitīvā, gan negatīvā veidā.

No minētās informācijas un apkopotajiem datiem var secināt, ka vietējo kopienu digitālajām prasmēm, digitālajām iekārtām un pakalpojumiem, kā arī kopienu sadarbības prasmēm ir bijusi būtiska loma *Covid-19* pandēmijas ierobežojumu un seku pārvarēšanas laikā. Viedie ciemi un kopienas, kā arī iepriekš spēcīgas kopienas bija daudz labāk sagatavotas krīzei, jo zināja un spēja pāriet uz digitālajiem risinājumiem dažādās dzīves telpās, kā arī sniegt savstarpēju pašpalīdzību.

Nemot vērā to, ka viedās kopienas un spēcīgas kopienas parasti ir cieši saistītas ar savu dzīves telpu un mērķtiecīgi izvēlējušās dzīvot mazos ciemos, tiek uzskatīts, ka līdzvērtīgu pakalpojumu sniegšana pat lielas pandēmijas gadījumā nevarētu būt par pamatu dzīvesvietas vai uzņēmējdarbības vietas maiņai.

Izpētot pandēmijas ierobežojumus un kopienu atbildes uz tiem, secināts, ka viedās kopienas, uzņēmēji, sabiedrisko pakalpojumu sniedzēji spēja pielāgoties plašam rīku klāstam – IT risinājumiem un lietojumprogrammām, telefona pakalpojumiem, sociālajiem tīkliem, tiešsaistes veikalumiem utt. Tas ir nozīmīgs pierādījums tam, ka IT infrastruktūra, tīkli un kapacitāte, kā arī digitālā savienojamība un savietojamība ir bijusi nozīmīga *Covid-19* krīzes pārvarēšanā.

Visbeidzot, viedās kopienas un spēcīgas kopienas spēja daudz labāk pielāgoties *Covid-19* pandēmijas ierobežojumiem un pārvarēt pandēmijas sekas, jo digitālajām prasmēm un spēcīgai kopienas pašpalīdzībai bija izšķiroša loma.

Šajā apakšnodaļā iekļautās daļas angļu valodā pirmēji publicētas žurnāla *Landscape Architecture and Art* rakstā *Smart and Sustainable Local Communities in Global Covid-19 Pandemic Conditions* (doi:10.22616/j.landarchart.2020.17.09).

4.2. Ciemu plānošanas ietekmes izpēte uz vietas attīstību

Pētījuma izstrādes un projekta “*Coast4us*” ieviešanas laikā ir izstrādāts pilotteritorijas ciema attīstības plāns Garupes ciemam, Carnikavas pagastā (Carnikavas novada dome, 2019).

Ciema attīstības plāna ietvaros organizētas gan formālas, gan neformālas sabiedrības iesaistes aktivitātes:

- ✓ organizētie pasākumi 2019. gadā attīstības plāna izstrādes ietvaros:
 - attīstības programmas uzsākšanas pasākums – “Kafija ar kaimiņiem” – 15. jūnijs;
 - trīs apmācību/izglītojošie un attīstības plāna izstrādes semināri:
 - “NVO darbnīca” – 16. jūlijs;
 - “Garupe kopā” – 1. augusts;
 - vides tēma par atkritumu apsaimniekošanas iespējām – 7. augusts;

- investīciju objektu un identificēšanas un iedzīvotāju saliedēšanas pasākumus “Solis dabā” – 7. augusts;
- projekta “Coast4us” noslēguma pasākums “Satikšanās” – 5. oktobris;
- ✓ attīstības plāna izstrādes noslēgum posmā tika rīkota iedzīvotāju aptauja. Aptauja noritēja periodā no 2.līdz 11.oktobrim. Aptaujas anketu aizpildīšana tika nodrošināta *Google* vidē. Kopumā aptaujā piedalījās 45 respondenti. Rezultāti ir iekļauti attīstības plānā. Balstoties Garupes iedzīvotāju aptaujas rezultātos, tika precizēts un papildināts konkrētais attīstības plāns.

Garupes ciema attīstības plāna izstrādes gaitā veiktā izpēte un komunikācija ar iedzīvotājiem ļauj secināt:

- ✓ iedzīvotāju sanāksmēs, darba grupās, kā arī apsekojot ciema teritoriju klātienē, ir apzinātas aktuālākās Garupes ciema vajadzības;
- ✓ sekmīgai plāna ieviešanai ir nepieciešama skaidra pārvaldes struktūra; plāns ir jāievieš ciešā sadarbībā ar pašvaldību;
- ✓ sabalansējot finansējuma avotus, var akumulēt nozīmīgus finanšu resursus attīstības plāna realizācijai;
- ✓ piecu gadu periodā ir iespējams īstenot nozīmīgu daļu no attīstības iecerēm;
- ✓ iedzīvotāji ir gatavi piedalīties ar savu līdzfinansējumu (biedra naudas) ciema attīstības projektu īstenošanā, ja tiek nodrošināta ciema attīstība, līdzekļu izmantošanas caurspīdīgums un iedzīvotāji pretī saņem adekvātus pakalpojumus.

Plāna izstrādes rezultātā ieviestas trīs jaunas iniciatīvas:

- ✓ pašvaldības ieviestais projekts, ko ciema iedzīvotāji norādījuši kā 1. prioritātes projektu – labiekārtota taka uz jūru (Carnikavas novada dome, 2021);
- ✓ pašvaldības ieviestais projekts, ko ciema iedzīvotāji norādījuši kā 2. prioritātes projektu – Lielās ielas rekonstrukcija (Carnikavas novada dome, 2020);
- ✓ ciema iedzīvotāju īstenota iniciatīva – inovatīva un ekonomiska ielu apgaismojuma ierīkošana Garupes ciemā (Viedie ciemi, 2022).

Minētie ieviestie projekti skaidri norāda, ka savstarpēja vienošanās (ciema attīstības plāns) starp publisko pārvaldi (pašvaldību) un vietējo kopienu sniedz abpusējus ieguvumus:

- a) būtiski uzlabotus un atbilstošus apstākļus vietējai kopienai;
- b) savstarpējo attiecību uzlabošanu starp publisko pārvaldi un vietējo kopienu;
- c) vietējās kopienas aktīvu pašdarbošanos savas vides uzlabošanai, gan ar finanšu resursiem, gan inovatīvām idejām.

Ņemot vērā šajā nodaļā apkopoto informāciju un analizētos datus, ir secināms, ka vietējās kopienas potenciāls ir būtisks resurss ilgtspējīgas attīstības nodrošināšanai reģionālās attīstības plānošanas kontekstā. Spēcīgu kopienu esamība nodrošina visaptverošu un iekļaujošu vietās attīstību, kas veicina ne tikai spēcīgu savstarpējo palīdzību un kopienu noturību dažādās ārējo apstākļu radītajās situācijās, bet arī ilgtspējīgu teritorijas attīstību. Šie secinājumi kalpo par pamatu izteiktajiem priekšlikumiem, kā arī izstrādātajam vietējas teritorijas/kopienas attīstības plānošanas modelim.

Secinājumi un priekšlikumi

Pētījuma **hipotēze** – ciemu attīstības plānošana kā jauns teritoriju attīstības plānošanas līmenis spēj nodrošināt integrētu, ilgtspējīgu un vietējo sabiedrību iesaistošu ciema attīstību reģionālās attīstības kontekstā – **ir apstiprināta**, ko apliecina pētījumā izvērstā, pierādījumos un zinātnes atziņās balstītā analīze. Papildus pierāda spēcīgo kopienu reakcijas spējas ārkārtas situācijā un kopienu inovatīvo ideju radīšanas spējas situācijās, kad vietējā kopiena ir spējusi vienoties par savu vienoto nākotnes risinājumu, izstrādājot ciema attīstības plānu.

Secinājumi

1. Latvijā pastāv pietiekami daudz normatīvo aktu, kas regulē ilgtspējīgas un līdzsvarotas attīstības plānošanai nepieciešamo principu ievērošanu – sabiedrības iesaisti, kontroles mehānismu, dokumentu savstarpējo saistīti. Vienlaikus ir noskaidrots, ka Latvijas attīstības plānošanas sistēma neparedz zemāku plānošanas līmeni kā pašvaldība, kā arī vienlaikus sabiedrības iesaiste ir paredzēta formālā veidā.

2. Pierādīts, ka telpiskās plānošanas sistēmas atrodas transformācijas procesā un faktiski “tuvojas” vietējiem iedzīvotājiem, jo attīstības fokuss pāriet uz noteikta cilvēka vajadzībām noteiktā vietā (vietējā sabiedrībā), izmantojot jaunas neformālas metodes. Pētījums tapis plašas un padziļinātas izpētes un sadarbības rezultātā ar dažādu valstu ekspertiem, ievērojot Baltijas jūras reģiona telpiskās plānošanas tradīcijas, bet ar kopīgu interesi par formāliem un neformāliem telpiskās plānošanas procesiem piekrastes zonās.

3. Ir identificējama dominējoša dažādu ieinteresēto grupu iesaiste telpiskās un kopienas plānošanas procesā un attīstības plāna īstenošanā. Plašas sabiedrības un interešu grupu iesaistīšana ekoloģiskajos, kultūras un sociālajos jautājumos, kā arī plānošanas procesā nodrošina labāku informācijas pieejamību plānošanas posmā un iespēju paust savas bažas un ierosinājumus plānošanas procesā.

4. Izpētot teritoriju plānošanu Baltijas jūras piekrastes teritorijās ĢIS izmantošanas kontekstā, tika izstrādātas trīs rādītāju grupas (statistikas dati, ģeotelpiskā informācija un dinamiskā informācija), kas sniedz potenciālu ieguldījumu vietējās teritorijas sociālajā, ekonomiskajā un ilgtspējīgajā attīstībā un kvalitātes uzlabošanas izaugsmē (potenciālie nākotnes slāņi).

5. Pētījuma autora skatījumā svarīgākie saimnieciskās darbības virzieni Baltijas jūras piekrastē – tūrisms un atpūtas organizēšana, ietverot kūrortoloģiju; ostu darbība, iekļaujot jahtu uzņemšanu un apkalpošanu, kā arī kuģu un ar to saistīto iekārtu un aprīkojuma būvniecību; zvejniecība, zivju apstrāde, īpaši tās tradicionālie veidi un atjaunojamo enerģijas resursu (vēja, ūdens, viļņu, biomasas u. c.) izmantošana.

6. Lai nodrošinātu *Blue Growth* pieejas attīstību Latvijā un jūras resursu veiksmīgāku izmantošanu, kā arī jaunu attīstības modeļa ieviešanu, valsts iestādēm būtu jāsadarbojas ar pētniecības institūtiem, iesaistot nozares pētniekus, vietējās pašvaldības un galvenokārt uzņēmēju pārstāvjus nacionāla mēroga diskusijās.

7. Kultūras mantojumam var būt gan tieša ietekme ekonomiskajā attīstībā, piemēram, turpinot ražot konkrētos produktus, gan arī netieša ietekme, veicinot papildinošu preču vai pakalpojumu ražošanu un pārdošanu, bet pašu vēsturisko kultūras faktoru izmantojot kā vietas identitāti un “magnētu”.

8. Vietējo kopienu digitālajām prasmēm, digitālajām iekārtām un pakalpojumiem, kā arī kopienu sadarbības prasmēm ir bijusi būtiska loma *Covid-19* pandēmijas ierobežojumu un seku pārvarēšanas laikā. Viedie ciemi un kopienas, kā arī spēcīgas kopienas bija daudz labāk sagatavotas krīzei, jo zināja un spēja pāriet uz digitālajiem risinājumiem dažādās dzīves telpās, kā arī sniedza savstarpēju pašpalīdzību.

9. Viedās kopienas un spēcīgas kopienas spēja daudz vairāk pielāgoties *Covid-19* pandēmijas ierobežojumiem un pārvarēt pandēmijas sekas, jo digitālajām prasmēm un spēcīgai kopienas pašpalīdzībai bija izšķiroša loma.

10. Pilotteritorijā Garupes ciemā ieviestie projekti skaidri norāda, ka savstarpēja vienošanās (ciema attīstības plāns) starp publisko pārvaldi (pašvaldību) un vietējo kopienu sniedz abpusējus ieguvumus – būtiski uzlabotus un atbilstošus apstākļus vietējai kopienai, savstarpējo attiecību uzlabošanu starp publisko pārvaldi un vietējo kopienu, vietējās kopienas aktīvu pašdarbošanos savas vides uzlabošanā – gan ar finanšu resursiem, gan inovatīvām idejām.

11. Vietējās kopienas potenciāla izmantošana vietas attīstībā sniedz būtisku pozitīvu ietekmi uz ilgtspējīgu valsts reģionālo attīstību, jo nodrošina iekļaujošu un visaptverošu teritoriju attīstības procesu. Vienlaikus, lai nodrošinātu šādu kopienu dalību vietas attīstībā, ir nepieciešams ne tikai ieviest jaunu plānošanas līmeni – ciemu plānošana, bet arī ieviest neformālas plānošanas metodes, ieviest datus un indikatorus balstītu attīstības plānošanu un novērtēšanu, kā arī veicināt vietas ekonomisko attīstību, kas balstās vietējos resursos. Lai nodrošinātu šādu iekļaujošu un visaptverošu vietas attīstību, ir jāievieš vietējās teritorijas/kopienas attīstības plānošanas modelis.

Priekšlikumi

1. Vides aizsardzības un reģionālās attīstības ministrijai sadarbībā ar plānošanas reģioniem, vietējām pašvaldībām un vietējo kopienu nevalstiskajām organizācijām nepieciešams formalizēt un ieviest reģionālās attīstības plānošanas sistēmā ciema/kopienas plānošanas līmeni.

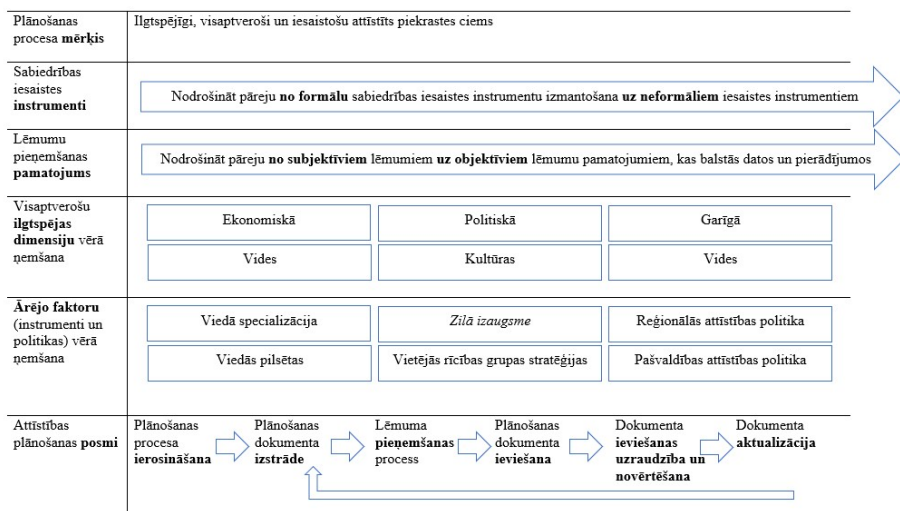
2. Vides aizsardzības un reģionālās attīstības ministrijai nepieciešams radīt, apkopot un nacionālā līmenī sniegt metodisku un finansiālu atbalstu reģioniem, pašvaldībām un vietējām kopienām, informējot par dažādiem plānošanas veidiem, formālām un neformālām sabiedrības iesaistes formām.

3. Finanšu ministrijai, Zemkopības ministrijai un Vides aizsardzības un reģionālās attīstības ministrijai kā resursu turētājiem un ārējās finanšu palīdzības programmu turētājiem, nepieciešams plānot finansējumu reģionu ilgtspējīgas attīstības nodrošināšanai, tai skaitā atbalstot vietējo kopienu virzītus projektus un iniciatīvas.

4. Nepieciešams stiprināt vietējos resursos balstītas vietas ekonomikas attīstību, izmantojot gan kultūru kā attīstības resursu, gan Baltijas jūru kā būtisku attīstības resursu. Lai nodrošinātu *Blue Growth* pieejas attīstību Latvijā un jūras resursu veiksmīgāku izmantošanu, kā arī jaunu attīstības modeļa ieviešanu, valsts iestādēm būtu jāsadarbojas ar pētniecības institūtiem, iesaistot nozares pētniekus, vietējās pašvaldības un galvenokārt uzņēmēju pārstāvjus nacionāla, reģionāla un vietēja mēroga diskusijās. Ņemot vērā to, ka šī priekšlikuma risināšanā ir iesaistītas daudzas institūcijas – Vides aizsardzības un reģionālās attīstības ministrija, Ekonomikas ministrija, Izglītības un zinātnes ministrija, Kultūras ministrija u.c., priekšlikumu būtu efektīvāk ieviest, ja tiktu noteikta koordinējoša institūcija, kas analizētu un rosinātu šīs prioritātes caurvijošu iekļaušanu nacionālās politikas un plānošanas dokumentos.

5. Ņemot vērā promocijas darbā ietverto zinātnisko rakstu kopumu, tajā apkopoto informāciju un izteiktos secinājumus, pētījuma autors ir izstrādājis **vietējās teritorijas/kopienas attīstības plānošanas loģiski strukturālo modeli** (8. att.), kas nodrošinātu ilgtspējīgu, visaptverošu un iekļaujošu vietas attīstību.

Modelis izstrādāts, lai koncentrēti un saprotami sniegtu informāciju tā lietotājiem par būtiskākajiem ciema plānošanas elementiem, lai sasniegtu ciema attīstības plānošanas mērķi – ilgtspējīgi, visaptveroši un iesaistoši attīstīts ciems. Šis modelis ietver vairāk elementus kā formāla un normatīvajos aktos noteikta vietas attīstības plānošanas pieeja, jo ietver gan norādi uz neformāliem iesaistes instrumentiem, gan objektīvu un datus balstītu lēmumu pieņemšanu, gan arī paplašinātām ilgtspējas dimensijām.



8. att. Vietējās teritorijas/kopienas attīstības plānošanas loģiski strukturālais modelis (autora izstrādāts).

Ņemot vērā šajā pētījumā secināto, modelis ietver šādu principu ievērošanu vietas attīstības plānošanas procesā:

- ✓ tiek definēta kopienas teritorija, kurai tiek plānots attīstības process;
- ✓ plānošanas procesā nepieciešams ņemt vērā un izvērtēt sešas ilgtspējīgas attīstības dimensijas, tai skaitā īpaša vērība jāpievērš vietējos resursos balstītai ekonomiskai attīstībai;
- ✓ plānojot vietas attīstību, tiek ņemti vērā ārējie apstākļi – vietējās pašvaldības un reģiona politikas, Baltijas jūras reģiona un ES līmeņa politikas un iniciatīvas. Šis princips nodrošina to, ka tiek ievērota savstarpējās sakarības un hierarhija starp plānošanas līmeņiem, nodrošinot to, ka vietējā ciema attīstība nodrošina ilgtspējīgu pašvaldība, reģiona un valsts attīstību;
- ✓ plānošanas procesā tiek ievēroti šādi plānošanas pamatprincipi: tiek izmantota ne tikai formāla sabiedrības iesaiste, bet arī neformālas un iesaistošas metodes; attīstības plānošanā

lēmumi tiek pieņemti objektīvi, kas balstās datos un zināšanās; attīstības plānošanas ieviešanai jāizmanto skaidri un izmērāmi indikatori.

Izstrādātais modelis ir prezentēts un apspriests ar starptautiskiem teritoriju attīstības plānošanas ekspertiem projekta "*Coast4us*" noslēguma konferencē, kas norisinājās 2020. gada 8.–9. septembrī tiešsaistē. Modeli ir paredzēti publicēt kā atsevišķu publikāciju pēc promocijas darba aizstāvēšanas.

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Pudzis, E., Geipele, S., Geipele, I. Community Participiation in Village Development: the Scale of Latvia. *Baltic Journal of Real Estate Economics and Construction Management*, 2016, 4, pp.84-99. ISSN 2255-9604. e-ISSN 2255-9671. Available from: doi:10.1515/bjreecm-2016-0007



COMMUNITY PARTICIPIATION IN VILLAGE DEVELOPMENT: THE SCALE OF LATVIA

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Abstract. The research provides an insight into village development planning, as well as considers village planning from the perspective of the national planning framework. Local settings of village development have also been taken into account. The research provides information about possible approaches for local community involvement in development decision-making.

The article aims at considering the current situation of the involvement of local communities in the advancement of local territories and at presenting the proposals for public involvement models.

Analysis, logical and historical data access methods, induction and deduction have been used in the present research.

Keywords: *Community development, community involvement, village planning.*

INTRODUCTION

Over the past decades, after regaining the independence of the Republic of Latvia, significant changes have taken place in the country's development. First, it is worth mentioning that a democratic country has been established along with the development of a new legislative framework in order to ensure the development of the country, as well as major efforts have been undertaken to contribute to the development of civil society. Until now, many laws and regulations on development have been developed, as well as the documents of territorial development have been worked out at a national, regional and local (municipal) level. At the same time, by means of different instruments – activities of non-governmental organisations, state policy instruments, and the European Union support instruments, fundamental changes have occurred in the public attitude towards the involvement in the political and economic decision-making process at different levels.

Taking into account the positive changes as well as the necessity for a continuous process development, there is a need to promote the system of regional improvement in the direction that would make local communities at their lowest territorial levels participate more actively in the decision-making process as well as participate in the development of their areas.

The article aims at considering the current situation of the involvement of local communities in the development of local territories and at presenting the proposals for public involvement models. Within the framework of the research, the following tasks have been set: to examine the theoretical terms of community (village) existence at a local level, give insight into the national development planning

system, and to analyse and present the proposals for the compliance of the public involvement models within the planning system.

Analysis, logical and historical data access methods, induction and deduction have been used in the research.

The main target group of the article is specialists of regional development planning at a national, regional and local level.

1. THEORETICAL ASPECTS OF VILLAGE PLANNING

1.1. Village and Community

In accordance with the Law on Administrative Territories and Populated Areas (Legislation of the Republic of Latvia, 2011), a village is one of the three types of inhabited areas (along with cities and farmsteads). The status of a village shall be granted and revoked by a municipality council, based on the local government territorial planning, in which the village border is defined and the need for developing a village is justified. The status of a village may be granted to such section of a municipality territory in which concentrated building is present (or is planned), people are living permanently, and the appropriate infrastructure has been developed. At the same time, the Law stipulates that the status of a village may also be granted to such section of district territory in which concentrated building is present or is planned, people are living permanently, and the appropriate infrastructure has been developed.

Jurgis Kavacs in his article “Village Concept Historical Development” (Kavacs, 2015) has stated that nowadays, a village is a certain rural area and it is not an administrative territorial unit as it was defined from 1945 to 1992. However, to separate the inhabited areas of administrative territorial units is not always easy because both have a number of similar characteristics.

An inhabited area is a long-term, permanent or seasonal human settlement where the necessary material living conditions are created (housing and communications). The fact that rural areas are different by their structure is well known. However, a unified and generally accepted classification of rural settlements has not been made yet. It should be noted that in statistics during the 1930s, the concept of rural village was used to refer to an individual inhabited building.

Historically, in the Latvian Conversation Dictionary (Latviešu Konversācijas vārdnīca, 1928), the “village” was defined as one of the several types of inhabited rural areas, whereas in the editions of Soviet times (Latvijas padomju enciklopēdija, 1982), the word “village” was used to refer only to an administrative territorial unit.

M. Ušča in her Doctoral Thesis “Territorial Community Formation in Riga” (Ušča, 2013) has considered territorial communities:

“If the community-unifying factor is a common area, one can speak of territorial communities in the city. Thus, territorial communities are primarily characterised by a common territory and a certain attitude towards this area. In general, in human geography, the idea of urban communities is used as a specific category relating to one of the two signs: geographically or administratively united

groups of people; common characteristics (e.g., interests, identity, etc.), which bring together individuals in one community.

The urban sociologist Margaret Kusenbah (Kusenbach, 2008) acknowledges that territorial communities can be defined in various ways – they may be different in size, structure, and scale; however, it is possible to distinguish three recognised and fundamental features that characterise all of them:

- 1) definite location (or: common territory);
- 2) common individual links (common interest, identity, etc.);
- 3) social interaction of individuals.

Definite location (or: common territory) – one of the characteristic features of territorial communities is a common territory. Unlike interest, ethical, etc., communities, the common area is the basis of territorial communities. The common area, first of all, can mean a common residence and related features – belonging to, identification with the definite location; secondly, the common use, care and responsibility of this area. Of course, not all the inhabitants of the territory are characterised by the above-mentioned features.

Common individual links – the feeling of connection with other inhabitants, described in various fields of science using such terms as “social capital”, “social support”, “neighbourhood cohesion”, “place attachment”, “sense of belongingness” and “sense of community”, as well as the feeling that an individual is part of a community, is one of the most important basic needs of a human. Citizen affinities may be based on shared interests, common problem solving, etc.; they may be associated with processes in the common space, as well as with processes that are not directly related to a specific location.

Social interaction of individuals – in the context of territorial community formation, the basis of interaction is everyday neighbouring, starting with polite greeting and eventually ending with close friendship. The basis of interaction is communication.

David Thomas (Thomas, 1991), who has experience in the formation of communities and is a key executive director at the Community Development Foundation, offers his vision of the territorial community (place-based community) establishment. He underlines the great role of resources and processes that form viable or communication communities: a) which are formed to bring inhabitants together not to alienate from each other; b) where there are social communication stimulation options/mechanisms – cafes, churches, stores, pubs, community centres, etc.; c) where there are regular activities that stimulate social interaction, for example, taking children to school on foot, and not by a car; d) where there is a different “live” social and recreational network, as well as a network based on mutual support; e) where there are various active types of organisations with different aims that bring people together as well as define and represent their ideas and problems; f) that allow inhabitants to undertake social roles outside their households – roles that satisfy these inhabitants and serve as the basis for other inhabitants (Fig. 1). These are the aspects that should be taken into account when analysing the creation of communities in a certain neighbourhood.”

Towards an even deeper understanding of community development, Thomas has created the community interaction scale, which is divided into two blocks and

grouped into grades from 1 to 11 (Fig. 1). The scale consists of grades that are separated, because they distinguish between lower, regular and obvious community interaction aspects (from 1 to 6) and higher/more complex and formal organisational aspects of community life (from 7 to 11).

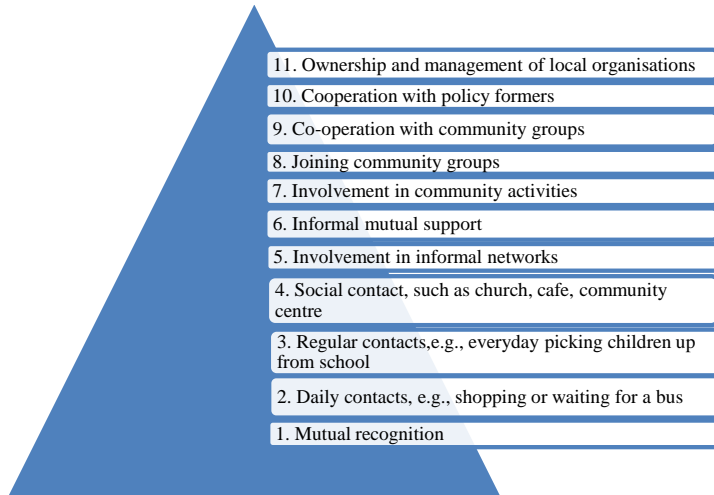


Fig. 1. Community interaction scale (Ušča, 2013) (Figure created by authors).

Taking into account that historically in Latvia, the villages have not formed as built-up areas but, among other things, are based on interpersonal ties and needs, as well as in theory, such territorial limitation forms a community, further in the present study the authors will examine the integrated development of villages and communities or territorial communities that have a clearly defined operational limitation.

1.2. Principles of Sustainable Development

In the process of long-term development planning, it is assumed to use the following concepts:

- 1) 'sustainable development' (Ministry of Environmental Protection and Regional Development, 2016) – the concept defined in the report of the World Commission on Environment and Development "Our Common Future" and widely used internationally since the 1992 United Nations Conference "Environment and Development" in Rio de Janeiro. Sustainable development is explained as "development that ensures satisfaction of present needs, without endangering the needs of future generations". Sustainable development has been characterised by three interlinked dimensions: environmental, economic, and social. This means that strict environmental protection requirements and high economic performance are not contradictory, i.e., the economic growth should not lead to

environmental degradation and, at the same time, should provide a high quality of life;

- 2) 'balanced development' (Legislation of the Republic of Latvia, 2008) – development is planned by balancing separate area progress levels and rates;
- 3) territorial cohesion' (European Commission, 2008) – its objective is to achieve harmonious progress in all inhabited territories and ensure that inhabitants can make optimal use of these territories;
- 4) 'territorial cohesion, sustainable and balanced development' are planned at regional and local level. There is a common opinion that the development strategy should be created taking into account the assets of a particular territory – physical, human and social capital –, as well as natural resources.

To ensure the quality of sustainable development planning, it is necessary to choose an appropriate growth theory for a particular situation and territory, which would be focused on a full-fledged human capital and other resources; therefore, further in the paper, a new economic growth theory is examined.

In order to ensure the planned development strategy compliance with the concepts above, the authors have chosen the new economic growth theory as the basis, because it is the most suitable for the current economic situation and the level of development in Latvia.

In the economic theories already in the 1970s, an attempt was undertaken to introduce an important factor – human resources. However, later, the research and development factor was introduced (Audretsch, Keilbach & Lehmann, 2006). For many years the outdated economic theories have been adapted to the real market situation. The main factor that should be understood by the entrepreneurs is that the economic development is in their hands – they own the physical capital, and, what is most important, they own knowledge and human resources.

The new economic growth theory is based on the idea that each country or region should look for its own path of technology development. It means that it is necessary to achieve the technological progress appropriate for a particular environment, nature and human knowledge, because customization of technology from other regions implies the repetition of the old and already used ideas. Modern buyers are mainly interested in innovative, effective and possibly less expensive products or services that meet the expected quality requirements. However, this result can be achieved only with new ideas, technologies and an efficient use of materials and management of human resources.

The new economic growth theory is based on a knowledge-based economy, in which a key resource is a human who is well-trained, ready to acquire new knowledge, as well as expresses self-initiative and readiness to share innovative ideas (Audretsch, Keilbach & Lehmann, 2006). According to the above-mentioned observations, it can be concluded that small and medium-sized enterprises are particularly important for the knowledge-based economy, because they need to improve their operational efficiency in order to be able to develop and function. Within the framework of these theories, the state supports small and medium-sized enterprises, because they are unable to introduce new technologies on their own but usually have a lot of innovative and new solutions, which later (in the

implementation of policy) will bring to the state comparatively more money than that initially invested.

Taking into account that the economic theory focuses on a narrow vision of development (but corresponds to the National Development Plan of Latvia for 2020), in the next section the authors explore the preconditions to be included in the planning documents that will promote not only the economic growth but also the social and environmental development.

1.3. National Legislation

In the Republic of Latvia, all regulations are issued in a hierarchical system; for this reason, the highest documents are laws, in addition to which regulations by the Cabinet of Ministers are issued, but they are interpreted by methodical recommendations.

In the Republic of Latvia, regional development planning is regulated by the Regional Development Law (Legislation of the Republic of Latvia, 2002), which aims to encourage and ensure a balanced and sustainable development of the country, considering all the features and possibilities of the whole national territory and its separate parts to reduce disparity between them, as well as to maintain and develop the natural and cultural characteristics and the development potential of each area. The Law puts forward the following requirements for development planning documents at local authorities:

- 1) regional development shall be implemented in conformity with the following mutually co-ordinated state and regional development planning documents: National Development Plan, National Spatial Plan, Regional Policy Guidelines, sectoral development programmes, development programmes and spatial plans of planning regions, development programmes and spatial plans of local governments, development programmes and spatial plans of territorial local governments;
- 2) the development programme of local governments is a long-term (twelve years) regional policy planning document, which specifies the development priorities of the relevant district local government. The development programme of a planning region shall be developed and implemented in accordance with the territorial spatial plan of the given district local government.

The general provisions and economic basis for the activities of the local governments of Latvia are set out by the Law "On Local Governments" (Legislation of the Republic of Latvia, 1994), which also stipulates the competences of local governments, councils and their institutions, as well as the rights and responsibilities of the chairpersons of city or municipality councils, the relations of local governments with the Cabinet of Ministers and ministries, as well as the general provisions for relations among local governments. The Law puts forward the following requirements for development planning documents at local authorities:

- 1) a local government shall develop the local municipality development programme and spatial plan, local plans, detailed plans and thematic plans,

ensure the implementation of the territorial development programme as well as the territorial planning administrative supervision;

- 2) the council has the right to approve the local municipality territorial development programme and spatial plan.

In the Republic of Latvia, regional development planning is regulated by the Development Planning System Law (Legislation of the Republic of Latvia, 2008), which aims to promote a sustainable and stable development of the local government, as well as improve the quality of life of inhabitants by determining the development planning system. The Law puts forward the following requirements for development planning documents at local authorities:

- 1) the objectives and the results to be reached in the field of relevant policy or territory shall be proposed, the determined problems shall be described and their solutions shall be provided, the possible impact of these solutions shall be evaluated, as well as further action necessary for the implementation of the policy and assessment of results shall be planned in the development planning document;
- 2) development shall be planned for the long term (up to 25 years), medium term (up to seven years) and short term (up to three years), as well as planning documents shall be drawn up for taking a conceptual decision or definition of the national position;
- 3) the development planning documents of local level are subordinated hierarchically to the regional and national level development planning documents. The development planning documents of regional level are subordinated hierarchically to the national level development planning documents.

Based on the information provided in this section, the authors conclude that in Latvia there are enough laws that regulate the enforcement of the previously viewed principles needed for a sustainable and balanced development – society involvement, control mechanisms and mutual commitment of documents. At the same time, it has been ascertained that in Latvia the development planning system does not provide a lower level of planning, i.e., at the level of municipality, and the involvement of society is mostly envisaged in a formal way.

1.4. International Context

Community development is an important stage of spatial planning, which has been thoroughly studied in the UK (Turner, 2009). It has been examined less extensively in the USA (Vitiello & Wolf-Powers, 2014), Australia (Campbell & Hunt, 2013) and Ireland (Gaynor, 2011), as well as in such developing countries as Cameroon (Alasah, 2011), Indonesia (Kenny, Fanany, & Rahayu, 2013), China (Chan, 2013), etc.

After the collapse of the Soviet Union, particular attention was devoted to the communities in the post-Soviet countries, as well as to the study of their development principles, for example, Georgia (Vasadze & Datuashvili, 2011), Ukraine (Williams, Nadin, Rodgers, & Round, 2012) and Lithuania (Macken-

Walsh, 2009) were examined. There are only a few studies that deal with the development of the Latvian communities.

2. PRACTICAL RESEARCH ON VILAGE PLANNING AND COMMUNITY INVOLVEMENT IN LATVIA

2.1. Local Planning Process

In order to interpret the Development Planning System Law (Legislation of the Republic of Latvia, 2008), which states that the Cabinet of Ministers shall, as far as it is not otherwise provided for in the Law, determine the development planning documents of all levels, types and terms, the content to be included therein, the procedures for drawing up, approval, updating, becoming invalid and term of validity thereof, as well as the procedures for the provision of the relevant reports and public participation, the Regulation No. 970 "Procedures for the Public Participation in the Development Planning Process" (Legislation of the Republic of Latvia, 2009) was approved on 25 September 2009, which prescribed that public participation was possible in the following stages of the development planning process:

- 1) the proposing of a development planning process (including detection of problems and determination of policy alternatives);
- 2) the drawing up of a development planning document;
- 3) the decision-making process according to the procedures stipulated by the decision-making institution;
- 4) the introduction of a development planning document;
- 5) the supervision and evaluation of the introduction of a development planning document;
- 6) the updating of a development planning document.

In the present study, the planning procedure is based on the "Methodological Material for Territorial Development Planning" (Ministry of Regional Development and Local Government Affairs, 2008) by the Ministry of Regional Development and Local Government Affairs (now – the Ministry of Environmental Protection and Regional Development).

The methodological material has been drawn up on the basis of the international experience and the results of Latvian planning, monitoring and evaluation system survey carried out by the OECD LEED experts, practitioners and researchers and the Ministry of Regional Development and Local Government Affairs (2008).

According to the methodological material, territorial development planning is carried out in three stages:

- 1) mobilisation of the region;
- 2) development of the planning document;
- 3) evaluation of the results of the planning document and the performance improvements.

The mobilisation cycle illustrated in Fig. 2 indicates the actions to be taken before drafting the development document in order to ensure the transparency of the process and the comprehensibility of the direct beneficiaries – citizens and entrepreneurs.

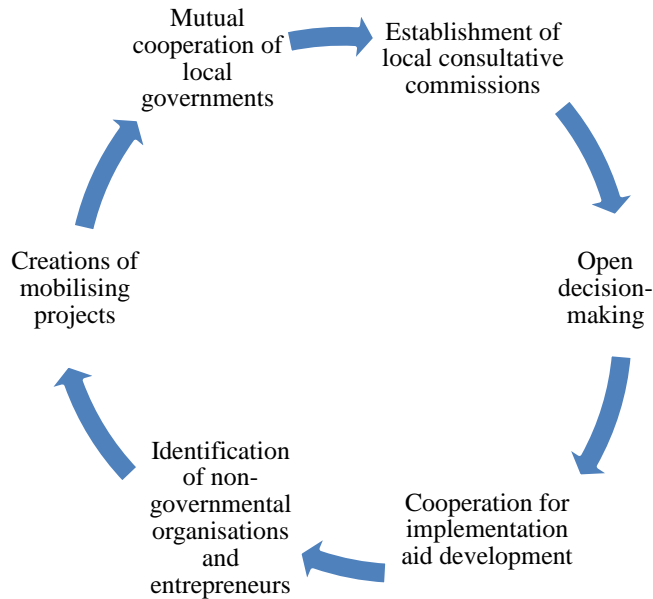


Fig. 2. Mobilisation cycle of a region (Ministry of Regional Development and Local Government Affairs, 2008) (the figure created by the authors).

2.2. Process Variety

For a detailed analysis of the interrelation between the mobilisation cycle stages and the opportunities for public involvement, the authors have developed three different models of engagement, as well as have analysed the strengths and weaknesses of these models.

2.2.1. Formal Model

The formal model is based on the process fully controlled by an authority, which results in a formally approved document, the implementation of which is ensured by a municipality itself; all participants are included in the formal planning documents and are not focused on public participation. The authors have developed the stage sequence of the formal planning model, as well as have identified its strengths and weaknesses (Table 1).

Table 1. Formal Planning Model (developed by the authors)

Stage	Strengths	Weaknesses
<p>Mobilisation The local government invites the village representatives to participate in the planning process, disseminate information in formal way (website, newspaper, etc.).</p>	<p>Widely available resources for the dissemination of information.</p> <p>Available communication contacts with citizens.</p>	<p>There is no direct daily contact with potential participants, which may cause “power distance”. *</p> <p>Informal communication channels are not used.</p>
<p>Planning The local government, based on statistical research, modern solution identification and clustering of working groups, prepares the documents that are publicly discussed and approved within the framework of laws and regulations.</p>	<p>Resources are available for extensive statistical research.</p> <p>Resources are available for research in various industries, attracting both local and foreign specialists.</p> <p>Possible exchange of experience by using gathered contacts.</p>	<p>The use of formalised procedures.</p> <p>The lack of knowledge about specific problems in a specific place.</p> <p>Formal discussion of documents, as well as reliance on the laws and regulations that in case of Latvia are often fragmented, outdated or obsolete, or there is no available funding or other resources to introduce the regulations (policy implementation documents are not made accessible in the resources available).</p>
<p>Implementation In accordance with the approved action plan and funding plan, the local government ensures the implementation of activities.</p>	<p>There are public resources available for the implementation of activities.</p> <p>There are tangible and intangible assets available to ensure the place for the implementation of activities.</p>	<p>Restrictions on the activities directed towards the regulation of statutory acts.</p> <p>Not being “on the site” ** makes it difficult to identify the most effective solution.</p>
<p>Monitoring In accordance with the regulations, the local government draws up regular reports on the progress, informs the Council about the reports, and publishes the reports online.</p>	<p>The data are made available, as well as there are restricted-access databases.</p> <p>There are specialists to perform the work, and the necessary capacity is ensured.</p>	<p>A difficult-to-manage and slow (change) management process.</p> <p>Formal reports based on data collection.</p>

* “Power distance” – obedience of persons at one organisation or institution to the dominant view of other organisations or institutions.

** Not being “on the site” – not living in a community on a daily basis, lack of knowledge of the community daily processes.

According to Table 1, the local planning process through a formal model of sequence is very formal, which is not possible within the framework of full mobilisation of the village, as well as development is based on formal data analysis and regulatory framework. Although this model provides resources for the implementation of activities, it does not always provide the most effective and appropriate solutions to achieve the objectives of activities. At the same time, relying on other regulatory acts – the policy planning documents – is closely associated with the document topicality and availability or the lack of resources for the implementation of policy initiatives.

2.2.2. Informal Model

The informal model is based on the process fully controlled by local society, which results in an informal plan, the implementation of which is ensured by the village society but its planning documents are drawn up by the local government. Stage sequence, and the strengths and weaknesses of the informal planning model are demonstrated in Table 2.

According to the informal planning model, the local territory planning process is informal, within which it is not possible to be fully confident about the legitimacy of the decisions made. Within this process, there is a high risk that the planned activity is based on emotional judgments, without taking into account the evaluation of an overall development context. There is a danger that the planned activities will not have sufficient resources for their implementation.

Table 2. Informal Planning Model (developed by the authors)

Stage	Strengths	Weaknesses
<p>Mobilisation Inside the village, residents are invited to joint meetings through informal channels.</p>	<p>Direct access to communication with the local community. Ability to use any informal communication channels.</p>	<p>There is no confidence that the information is spread steady to all citizens, as well as whether the information is not spread to a closed society.</p>
<p>Planning Planning “from scratch” where there is focus on local issues and through discussion the best solutions are found. A document (or a decision) is adopted within a certain group as a result of inner agreement.</p>	<p>Possibility of generating any kind of ideas that are up-to-date at the given moment. There is a possibility of extensive discussion undertaken by local “opinion leaders”.</p>	<p>There is no clear legal status of decision. There is no clear substantiation and usefulness of discussion. There is a risk that the planning “from scratch” can cause great mutual conflicts. There is a possibility that the village plan is developed not taking into account the overall administrative territory development vision.</p>

Stage	Strengths	Weaknesses
<p>Implementation Local community ensures the implementation of the plan using its own or attracted resources, searching for solutions “on the spot”. Local government, which is focused on achieving its goals, is not involved in the implementation process.</p>	<p>There is no relation with regulatory limitations; therefore, there is an opportunity to search for the most effective and appropriate solution.</p> <p>There is a possibility of being flexible and adapting to rapidly changing circumstances.</p>	<p>There are no clear implementation resources and their availability is limited – financial, physical and intangible assets.</p> <p>There are no permanent resources to ensure the implementation process; there is a risk that the implementation process is fragmented and purposeless.</p>
<p>Monitoring Informal monitoring, which can be defined; outcome indicators can be the results of the activities.</p>	<p>Informal monitoring that allows very quickly responding to the changes required under particular conditions.</p>	<p>It is not clear what the process of change management would be and whether broad public involvement would be ensured in the process of changes.</p> <p>There are limited resources of data storage and analysis.</p>

2.2.3. Composite Model

The local government promotes the progress of the process, providing support for the development, as well as participates in the implementation of activities, but the co-responsibility of the implementation of the activities (including the implementation of the activities) is also undertaken by the local community. The stage sequence, and the strengths and weaknesses of the composite model are provided in Table 3.

According to Table 3, the composite planning model is considered to be the most successful one out of all village (local area) planning models, because the widest possible interested audience is involved, at the same time creating informal cooperation and decision-making procedures. Within this model, it is important to agree on the specific format of cooperation between formal and informal parties in order to have the opportunity for necessary compromises (taking into account the regulatory framework applicable to the formal parties).

Table 3. Composite Planning Model (developed by the authors)

Stage	Strengths	Weaknesses
<p>Mobilisation The local government, in cooperation with formal and informal representations of a village (groups or organisations), establishes an institutional group of interested parties that participate in the creation of the document. Information is disseminated in a formal and informal way.</p>	<p>It is possible to use the most extensive information dissemination channels – both formal and informal, providing access to information and possibility that the widest interested audience will express their views.</p>	<p>It is necessary to ensure a tight control over the information flow to avoid its distortion before it reaches the end user.</p>
<p>Planning Local government, based on the vision of the development of the whole area and the evaluation of the needs of a particular village, puts forward proposals for the development plan, which is discussed within the given stage.</p>	<p>There is possibility of using the data collected by the local government, as well as of using municipal resources to ensure the implementation of the process. There is a free form of the final document because the progress of the process is a mutual agreement of process facilitators. It is possible to find a compromise on any issue because the decision-making process is based on compromises and persuasion.</p>	<p>A strong process management is needed because there are a large number of parties and interests involved; at the same time, emotional and local recommendations are possible, which generally contradicts the common principles of spatial development.</p>
<p>Implementation In the plan, both the needs of society and local government policy are consolidated; the policy shall be divided into activities enforceable to each party.</p>	<p>Collaboration among the integrators of activities as well as their simultaneous (parallel) work, which could contribute to faster implementation of the plan within the time limit, is made possible. The most effective ways of implementing the activities are searched for because the formal procedures are not obligatory for all the integrators.</p>	<p>Strong process management is needed because a large number of parties and interests are involved.</p>
<p>Monitoring The defined socio-economic and outcome indicators are monitored by all parties and adjusted in collaboration.</p>	<p>It is possible to freely select the form of supervision and procedures, as well as there is a possibility of delegating the monitoring and change function to the citizens of the village, who can at once respond to new actual conditions.</p>	<p>If monitoring is not performed by a strong leader, then it is possible that changes are made chaotically or without the involvement of all parties, thus not achieving the necessary village development goals.</p>

CONCLUSION

Based on the present research, the following conclusions can be drawn.

1. Regions worldwide and European countries have experience in village planning to foster local development – both through private initiatives and common national policies. At the same time, the planning system of Latvia does not stipulate specific provisions of local (village) development planning.
2. In the planning system of Latvia, the village development level is not envisaged, although the local society is best aware of its local problems and is able to find the most effective solutions to prevent them. At the same time, it should be taken into account that the highest added value to the village planning (including the implementation of plans) can be provided by mutual cooperation, because both parties have their own advantages (for example, local society – knowledge of local problems; local municipality – material and non-material resources). The use of common advantages in combination with a qualitative administration could provide better solutions, as well as increase the life quality of village citizens and satisfaction with their residence.
3. Based on the regulatory framework and national guidance materials, as well as regional mobilisation cycle, the authors have developed three models of community involvement – formal, informal, and composite. The research has demonstrated that using the composite community involvement model for village development planning and involving a wider range of parties interested in village development, it is possible to obtain the widest range of views (and the needs), promote shared public responsibility of the village development, as well as find the most effective (in financial terms as well) solutions, which could considerably increase the satisfaction of village citizens with the living space in the future.

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Pudzis, E., Geipele, S., Auziņš, A., Lazdiņš, A., Butnicka, J., Krumina, K., Ciuksa, I., Kaļinka, M., Krutova, U., Gritliht, M., Pii-Pärn, M., Björklund, C., Vävare, S., Hagström, J., Granqvist, I., Hallor, M. Evaluation of Formal and Informal Spatial Coastal Area Planning Process in Baltic Sea Region. *International Journal of Environmental Research and Public Health*, 2021, Vol. 18, No. 9, 1.-20.lpp. ISSN 1660-4601. Pieejams: doi:10.3390/ijerph18094895



Article

Evaluation of Formal and Informal Spatial Coastal Area Planning Process in Baltic Sea Region

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Citation: Pudzis, E.; Geipele, S.; Auzins, A.; Lazdins, A.; Butnicka, J.; Krumina, K.; Ciuksa, I.; Kalinka, M.; Krutova, U.; Grimitliht, M.; et al. Evaluation of Formal and Informal Spatial Coastal Area Planning Process in Baltic Sea Region. *Int. J. Environ. Res. Public Health* **2021**, *18*, 4895. <https://doi.org/10.3390/ijerph18094895>

Academic Editor: M. Dolores Esteban

Received: 16 March 2021

Accepted: 28 April 2021

Published: 4 May 2021

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Abstract: Many shared views of both scholars and practitioners reflect spatial planning as a place-creating process that must be understood from a multi-level perspective. Formal and informal planning modes have variations in planning practices in different countries. In this study, we aimed to evaluate the interaction of formal and informal spatial planning in the frame of the spatial planning system in the Baltic Sea region. We were searching to highlight the involvement possibilities of territorial communities in the spatial planning process around the Baltic Sea region, focusing on coastal areas and their specific features in Latvia, Estonia, the Åland Islands of Finland, and Sweden. Involved experts expressed views based on a pre-developed model to identify how institutionalized formal spatial planning relates with informal interventions. This allowed the development and proposal of a model for coastal area spatial planning and implementation. We concluded that in the spatial planning approach, the governance works differently in different countries, and coastal area spatial planning differs from regular spatial planning. The information base is sufficient to initiate spatial planning at the municipal level, but municipalities should be more active, involving territorial communities in the planning, implementation, and control of municipal spatial planning, as this ensures a greater interest in the use of planning outcome.

Keywords: formal planning; informal planning; spatial planning process; coastal area spatial planning; planning levels; community involvement; territorial community; coastal communities

1. Introduction

With increasing urbanization, particularly in the coastal areas of the Baltic Sea region, there are several sustainable development problems identified, e.g., environmental pollution, community living, and preservation of cultural and natural heritage. A comprehensive and local needs-based planning approach to the sustainable development of maritime and coastal areas in the Baltic Sea region is relevant and consequently better for decision-making by local and regional governments [1]. Therefore, the formal and informal spatial planning process of the coastal zone needs to be evaluated. To understand the importance and interrelationship of formal and informal planning, it is necessary to assess the stages of mobilization, planning, implementation, and monitoring (analysis structure).

An increasing proportion of the world's population is based in coastal cities because of the beneficial circumstances and services they provide [2]. The Baltic Sea coast is attractive in many aspects. Interests from different sectors all have claims on the coastal areas resulting in major pressures on valuable marine habitats, natural resources, and ecosystem services. There is a joint requirement for improved management strategies to work with spatial planning in a more holistic, sustainable, and efficient way. In the frame of the Interreg Central Baltic project Coast4us in all participating countries (Latvia, Estonia, the Åland Islands of Finland, and Sweden), the problem is that many relevant interests, e.g., environmental, economic, social, or cultural, are not sufficiently recognized in the planning process. This non-holistic approach results in actions that are less viable and are less adapted to local interests, and thus they become less cost-efficient. The idea of the project Coast4us is therefore to work with a holistic approach in the planning process, involving stakeholders of different interests in a participative way, and create sustainable marine and coastal zone plans. The main objective of the project Coast4us is to create sustainable plans for marine and coastal areas [1].

To achieve faster territorial growth and to provide positive changes in regions and local municipalities, it is essential to involve wider society, including entrepreneurs, local communities, and citizen groups, in addressing territorial development issues. A formal planning approach refers to the provision of a formal planning process which is regulated by established institutional settings and implemented through a set hierarchy of competences, e.g., planning and governance levels. Formal planning also provides formal planning tools, e.g., a long-term comprehensive plan for the local government territory (municipality). In the context of planning, Syssner and Meijer [3] assume that formal planning processes contain elements of informality. The concept of formal planning can be used to refer to the kind of planning that is government-led and shaped mainly by formal structures and through formal negotiation. However, beyond the formal planning system, we may recognize some attempts of citizens to "adapt space" according to their needs.

Informal planning approaches, such as community planning and participatory budgeting, might help local governance better understand the needs of local society, especially in large municipalities also addressing the needs of peripheral areas. It might help to provide the best tailored solutions for different communities/areas. In addition, it might improve better societal trust in public governance. Furthermore, an informal planning approach might provide an opportunity for the society/active citizens to present their needs to the local governance, providing more fruitful dialogue with local governance and engaging in a public decision-making process. It might help them to better contribute to the development of living environment attracting necessary support from local governments and other parties, promote local patriotism and a sense of belonging to their place of life, as well as to improve their knowledge about the development planning and implementation processes. Local initiatives are of great importance as often the local community might address the challenges in the most efficient way. These assumptions have been discussed among participants of the project Coast4us during organized networking and workshops. However, it is necessary to explore how formal and informal spatial planning processes in the specific coastal conditions support the development and implementation of long-term strategies and plans, as well as how these processes interact with and influence the sustainability of local communities.

The scientific literature on the territorial community emphasized five core elements. First, locus, a sense of place, referred to a geographic entity ranging from neighbourhood to city size, or a particular milieu around which people gathered, such as, a church or recreation centre. Second, sharing, common interests and perspectives, referred to common interests and values that could cross geographic boundaries. Third, joint action, a sense of coherence and identity, included informal common activities such as sharing tasks and helping neighbours, but these were not necessarily intentionally designed to create community cohesion. Fourth, social ties involved relationships that created the ongoing sense of cohesion. Finally, a diversity referred not primarily to ethnic groupings, but to the

social complexity within communities in which a multiplicity of communities co-existed [4]. We may see the territorial community as the common territory of existence, the presence of common interests of local importance, social interaction of community members in the process of ensuring these interests, psychological self-identification of each member with the community, common communal property, and payment of utility taxes [2]. Therefore, in the present study, the territorial community in Latvia is a village, in Estonia, an island, in Sweden, a village, camping site, and unexplored island, and in the Åland Islands of Finland, urban and rural areas [1].

The experts of participating countries in the project Coast4us addressed their views about the spatial planning system and process in their territorial community. **In Latvia**, the villagers have a better understanding of the situation on the ground and a better understanding of the needs of the inhabitants of the village than the people from outside of the village. The involvement of the population allows for better control of the result to be achieved. The villagers better maintain their objects because they are more interested. **In Estonia**, continuously involving and engaging different social groups in the early visioning and planning process should be a binding part of every development. **In Sweden**, it is important to listen to local experts and actors on site. Therefore, it is necessary to involve and engage them in an early stage for development. **In Åland**, it is important to get local people involved in an early stage in the planning process, to ensure people understand what needs to be implemented. The purpose of the whole process should also be described based on sustainability principles, because planning and a future sustainable society with a working green infrastructure must go hand in hand. We need to prevent the effects of climate change and we need to increase and strengthen biodiversity because it gives society a greater resilience.

The **hypothesis** of this study is that spatial planning systems in the Baltic Sea region are in the process of changing in order to involve society in the spatial development of their territory.

For this study, several **research questions** were developed. First, how can the spatial development planning process improve the life of local communities in the specific coastal conditions? Second, what is the significance of both formal and informal planning approaches, and the impact of their interaction? Third, what are the possibilities to involve in the coastal area spatial planning process for the population groups in territorial communities?

In order to answer the research questions, a multi-element study is needed, which includes: (1) theoretical aspects on the features of formal and informal planning; (2) an overview of special needs of coastal communities, comparison, and evaluation of the spatial planning process in specific coastal areas (considering that one coastal area consists of different countries with different planning systems); and, (3) the impact assessment of the stages of the spatial planning on meeting the special needs of the coast.

The multi-element study is being developed for the Baltic Sea coast, based on information from national experts, as well as the study of specific pilot areas around the Baltic Sea.

The pilot areas of Latvia are two small village communities from two different coastal local municipalities: (1) Tuja village in Salacgrīva municipality, and (2) Garupe village in Carnikava municipality. **The pilot area in Estonia** is the largest island in Estonia-Saaremaa. This is the main island of Saare county and it belongs to the West Estonian Archipelago. Since the end of 2017, based on all twelve former municipalities, Saaremaa has been governed as one municipality. **The pilot areas on mainland Åland** are: (1) an urban area in the city of Mariehamn, and (2) a rural area in Sund municipality. **The pilot areas in Sweden** are from three different coastal local municipalities: (1) a small village in Arkösund/Norrköping municipality, (2) a camping site in Ekön/Valdemarsvik municipality, and (3) the unexplored island Bergön in Söderköping municipality.

The purpose of the research is to evaluate the interaction of formal and informal spatial planning processes in the coastal area through comparative study, considering the hierarchies of spatial planning systems in selected and differently experienced country

cases around the Baltic Sea region. Accordingly, **the objectives** are set as follows: (1) to describe the theoretical aspects of the formal and informal planning; (2) to compare and evaluate the spatial planning process of Latvia, Estonia, the Åland Islands of Finland, and Sweden by levels of the spatial planning system; (3) to conduct an expert survey on the impact of formal and informal planning processes by using the stages of cooperation, i.e., mobilisation, planning, implementation, and monitoring; and (4) to propose a model supporting coastal area spatial planning and implementation for community involvement.

The research uses: (1) a literature review method for an overview of theoretical aspects of the formal and informal planning and a comparative evaluation of the planning process; (2) an expert assessment method employed by the experts from Latvia, Estonia, Finland, and Sweden for a description of the situation, according to the objectives of the project and the study, as well as to conduct an expert survey; and (3) discourse analysis and synthesis as well as graphical methods for designing main research results, including a proposed model. The collection and analysis of secondary and primary data are performed by the authors of the study. The expert survey in (2) is based on the methodology previously developed by researchers at Riga Technical University [5].

2. Theoretical Background

The theoretical aspects of formal and informal spatial planning are closely related to settlements, i.e., villages and towns. Historically, developed cities and other places are the largest complex adaptive systems in human culture and have always been changing over time according to largely unplanned patterns of development [6]. To a large extent, the development of processes is shaped by the potential for co-optation. Erikson [7] outlined four characteristics of collaboration: (1) the bonding between the parties, incorporating the user representatives in the organizations and their institutional logic; (2) the organizational framing of the user involvement activities, setting the initial rule for how to act/speak, where to act/speak, when to act/speak, as well as what to speak about; (3) the organizational control exercised as the activities took place, directing the discussions and interactions to align with the interests of the welfare organizations; and (4) the resistance exercised by user representatives, enabling them to influence the organizations and contribute to change. Successful collaboration is based on available resources. Two resource groups are important in the planning process, namely, human resources and organizational resources. Their significance primarily consists of two facets: first, that they utilize existing knowledge; and second, that they create legitimacy and feelings of pride and belonging in the local community [3,8]. Collaboration can take place in a formal, semi-formal, and informal way, which means that spatial planning also has these forms of collaboration. From the best-practice perspective, decision-making in spatial planning must be decentralized, and the tools of spatial planning must be less binding (which has been broadly practised in Switzerland, for instance) [9].

The idea of the informal organization was first introduced by Barnard [10]. He compared the informal organization to a clique or an exclusive group of people that naturally forms over time. According to Barnard, this can be achieved by linking Maslow A's theory of needs and central ideas to new concepts of leadership [11]. Many scholars have studied the involvement of informal social groups in the planning processes, including spatial planning. For example, Certoma [12] defined five tools, evidence, knowledge, encouragement, evaluation, and assistance, which are related to the aim of the study. However, we must first distinguish between spatial planning systems and planning practices, the latter of which reflects the planning culture. Reimer, et al. [13], interpreted planning systems as "dynamic institutional technologies, which define corridors of action for planning practice, which may, however, nonetheless display a good deal of variability". Fürst [14] equated the planning culture to the values, attitudes, mind-sets, and routines shared by those taking part in the planning process. Reimer, et al. [13] provided some arguments that planning practices inherent to the system cannot be drawn only from a comparison of legal-administrative framework conditions.

Comprehensive literature analysis allows for identifying the characteristics of informal spatial planning. Based on such an analysis, Mishra [9] formulated that informal planning should: facilitate the formal process; adds flexibility; contributes with matured results by discourses; is used as an ad hoc system when required; implies a degree of innovation, continuously meeting the planning challenges; is a non-traditional planning mode not influenced by the hierarchy culture of planning; is a multi-level collaboration process-oriented to consensus in decision-making; requires governance to avoid potential conflict and progress towards a legitimate solution; requires the inclusion of different stakeholders' unbiased results or planning direction; and vitally needs transparency as it keeps the stakeholders of different levels well informed and avoids potential conflicts.

Following a "socio-institutionalism perspective", this article refers to the assumptions guiding spatial planning and development. Therefore, the legal and administrative structures and competencies that shape possible spatial development or changes in land use (formal institutional settings) are introduced first to search for governance relations in planning and implementation processes. Institutions are established to organize a spatial planning process and provide measures for public involvement. Thus, the institutional performance refers to administrative structures, policy styles, institutional and social settings, collective actions, and social learning [15]. The planning process is concerned with deliberative plan-making, applying various planning modes of different scales, e.g., national, regional, local, and more detailed. However, the planning process may differ in terms of the extent of public involvement. This may be assessed, for instance, by analyzing the activities of stakeholders' deliberation and informal population groups.

Formal and informal (complementary) spatial planning tools provide the necessary support to improve planning practices, but positively-influenced practices substantiate discourses (e.g., desirable dominating ideas) in spatial planning [15]. Informal planning tools often are developed as a result of using project-oriented techniques and integrated assessment tools, e.g., nature protection plans, management plans of water bodies, or assessments of ecosystem services. Relevant processes, e.g., formal and informal spatial planning, local development, and protection of valuable landscapes and related consequent decision-making, strive for collaborative learning by understanding the values of land-related resources and their most efficient usage. Auzins [15] provided main objectives for introducing a values-led planning approach as it promotes improved, more supportive, and collaborative territorial governance as well as informal institutions and organisational forms, as they significantly support formal spatial planning and social settings driven by common and local place-based interests.

At the same time, it is clear that spatial planning approaches and governance work differently in different countries. Indeed, even in Europe you can find varieties of approaches starting from integrated, regional-economic to just land-use management approaches. Coastal area spatial planning differs from regular spatial planning because it is connected with specific water objects (Baltic Sea in the case of this study). The water object is placed on territories of different countries with different legislation, history, and governance. With these circumstances, it is important to analyze planning conditions, and share knowledge to, from one perspective, sustainably use and develop a common resource (Baltic Sea in case of this study), and from another perspective, make equal opportunities for the development of coastal communities, regardless of political circumstances.

Spatial planning, implementation, and monitoring need to have a certain order to ensure common processes and results [3]. At the same time, for instance, the latest research in village and community planning in Latvia proposed that the methods of involvement must be as diverse as possible [16]. This clearly indicates that, as a result of societal growth, the planning process must be changeable and modern, which forces the research community to constantly look for new and appropriate opportunities for formal and informal societal involvement and motivation.

Community involvement has been shown to make a positive contribution to planning and development processes. At its best, community involvement can enable the follow-

ing: processes to be sped up; resources to be used more effectively; product quality and feelings of local ownership to improve; added value to emerge; confidence and skills to increase for all; and conflicts to be more readily resolved. Public participation should be an indispensable element in human settlements, especially in planning strategies and in their formulation, implementation, and management. It should influence all levels of government in the decision-making process to further the political and economic growth of human settlements [17].

Recently, Geipele, et al. [18] highlighted several specific spatial planning problems of coastal communities in the Baltic Sea region by evaluating community involvement in participatory processes: (a) lack of communication, regardless of country and region; (b) the weak involvement of different social groups; (c) insufficient coastal and environmental management; (d) excessive regulatory enactments; and (e) summer-year-round population conflict. These problems must be taken into account, but have not been analysed in this study.

3. Materials and Methods

In general, qualitative research methodology (descriptive, logical, comparative expert assessment) and quantitative research methodology (factual comparison methods) are used for the study.

The experts, who have been involved for the development of the study, represent the local (municipal) and governmental authorities as well as scientific sectors to assess the formal and informal territorial coastal spatial planning process in Latvia, Estonia, the Finnish Åland Islands, and Sweden. An expert group consisting of four subgroups and representing particular countries has been established for the study: (1) in Latvia, three scientific experts and three experts from national-level authority; (2) in Estonia, two experts from municipal authority; (3) in the Åland Islands of Finland, two experts from the government and one expert from municipal authority; and in (4) Sweden, two experts from local, municipal authorities. The size of the expert subgroups was determined by the number of participants involved in the project (determined by the team leader).

For the overview, analysis, and discussion of spatial planning systems, the experts explored particular institutional settings, legal instruments, and policy planning documentation. The results are summarized in Table A1 (see Appendix A). The expert survey was conducted to assess the impact of formal and informal spatial planning on community development by using four stages of cooperation. From the preliminary networking in the frame of the Coast4us project, it was acknowledged that selected experts were professionally competent enough to deliver knowledge that is accumulated from formal and informal population groups of communities, and thus, represents the dominating opinion of local communities in specific pilot areas of the coast. Therefore, they gave some discursive influence on research, as they were largely in charge of relevant spatial planning and implementation processes. The designed structured expert survey consisted of two parts to particularly analyze the significance of both formal and informal planning. Each part included 12 questions to the respondents. The responses to these questions allowed scoring from 1 to 10 (from low significance to high significance). The average rating data demonstrated some interpreted trend and ground synergistic planning models. The Section 6 of the study displays summarized results and proposes the model for cooperation as a synthesized outcome.

4. Pilot Areas for Research

Figure 1 shows marked pilot areas of this study in the Baltic Sea region.

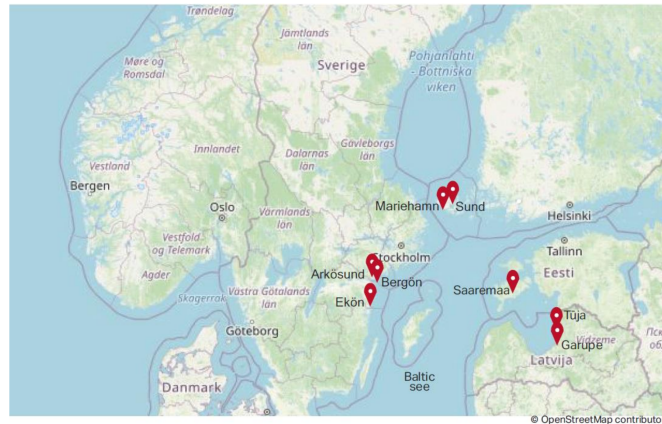


Figure 1. Pilot areas of the present study on the Baltic Sea region map.

4.1. The Case Study of Latvia: Description of the Villages

Garupe village is in the Piejura lowland, Carnikava municipality (Latvia) about 4 km to the southwest from the administrative centre of Carnikava, and 26 km from the centre of Riga. The village is located in the surrounding area of capital Riga. The environmental conditions in Garupe are largely determined by the fact that the village is in the territory of the Eimura-Mangali polder. The spatial structure of Garupe village is characterised by dense summer house/dwelling house construction, a drain system, and a dense street network. Garupe is a residential village. The population of Garupe is gradually transforming from a seasonal to a permanent population. On average, 405 people live in Garupe. During the summer, the total population reaches over 1000 people. People work in nearby areas, especially in Riga. Experts concluded that Garupe is a typical urban extension of the Riga city and the local community is forming at its stage of development.

Tuja village is a populated place in Liepupe parish, Salacgriva municipality, Latvia. It is located on the coast of the Gulf of Riga, on the banks of Zakupite, 33 km from the centre of Salacgriva district and 75 km from Riga. On average, 276 people live in Tuja. In Tuja, the territory of detached houses occupies 44%, recreation area—11%, territory of garden plots—2%, and mixed business area—5% (approximate distribution). There are two campsites and a beach in Tuja. There is a long fishing tradition and public services are available.

4.2. The Case Study of Estonia: Description of the Island

Saaremaa municipality is located on the largest island in Estonia—Saaremaa. It is located in the Baltic Sea, south of Hiiumaa island and west of Muhu island, and belongs to the West Estonian Archipelago. It is the fourth largest island in the Baltic Sea. Its territory is 2718 km² and the shoreline is 874 km long. There are 4 large islands in Saaremaa municipality: Saaremaa, Abruksa, Vilsandi, and Kõinastu and a number of smaller islands. In Saaremaa municipality, there is 1 town, Kuressaare, 9 boroughs, and 427 villages. There are 31,466 inhabitants (as of 1 April 2019), and the population is descending and ageing. Inhabitants work mostly in electronics, boat building, food, or the plastic industry, but also in agriculture, fishing, and tourism. Many people are self-employed, such as little holiday homeowners, craftsmen, small producers or small farmers, and many people do telework.

Because of its mild maritime climate and a variety of soils, Saaremaa has a rich flora, including rare orchid species, but also a wide variety of rare wildlife species, ranging from insects to seals. There are also a number of semi-natural communities (wooded meadows, alvars, floodplain meadows, and coastal meadows). All this biological richness is the reason why almost 18% of the Saaremaa community is under nature conservation.

Beautiful nature, interesting geology, safe environment, unique cultural heritage, and many created facilities (spas, hotels, tourism farms) are the reasons why Saaremaa is a quite popular tourism destination. In addition, it is common to own a summer house there, to be used seasonally. Saaremaa can be visited by ferry or by plane, but there are also many small marinas for yachts or other small boats.

The aforementioned components need a comprehensive understanding and vision. In the project, the main aim is to generate valuable input material for the Saaremaa municipality, including a comprehensive plan regarding coastal area region.

4.3. The Case Study of the Åland Islands of Finland: Description of the City and Rural Area

Mariehamn city is the capital of the autonomous Åland Islands, where about 11,000 people (of the total 30,000 Åland population) live. Here, one may find shops, cafés, camping grounds, public beaches, green areas, hotels, conference centres, marinas, and football fields. Mariehamn city also has a big harbour and is an important tourist destination during the summer months. Mariehamn is situated in the south of the mainland on a peninsula, almost completely surrounded by water. It is important to make sure that the activities on land do not harm nature on land or at sea. Therefore, in the project, the aim is to try to incorporate the importance of a functioning green infrastructure in the planning of the city.

Sund municipality is an area where the agriculture dominates, and the challenge is to bring back natural biodiversity and stop nutrient run-off from land to sea.

4.4. The Case Study of Sweden: Description of the Village, Camping Site, and Unexplored Island

Arkösund is in the eastern part of the Vikbolandet peninsula, 50 km from Norrköping city and 200 km south from Stockholm. The district is located in the Östergötland region territory.

Östergötland's northern archipelago, with the bay of Bråviken, shores along the Vikbolandet peninsula, and the skerries and islands outside, is called Arkösund Archipelago. The Gränsö-Birkö-Aspö-Arkö island chain outside the channel by Arkösund is composed of larger islands with a fair amount of settlement, both in the form of permanent residences and weekend cottages. The large shallow areas here have proven to have great biodiversity and different types of environments. That is one reason that the county's largest nature reserve, Bråviken Nature Reserve, with more than 9000 hectares of protected land and water, has been accorded the status of a marine nature reserve. Many people who visit Arkösund come by boat since the north-south shipping line from Stockholm passes right by here. Arkösund is a natural junction. The community itself is an old fishing village and a seaside resort. At the end of the 19th century and beginning of the 20th, Arkösund was a summer paradise for wealthy Norrköping residents, which is abundantly clear from the many large villas. A special "resort train" ran on a narrow-gauge railway to the area. There were picturesque small walking paths with footbridges out to the islets, the so-called "Bathing Islands". During the period from March to October, it is much frequented and a centre of activities. Here, one may find marinas, a boatyard, a petrol station, shops, camping grounds, conference centres, pubs, and hotels with entertainment. Although the activities vary from year to year, Arkösund is a place where there is always life and movement.

5. Assessment of Different Spatial Planning Levels, Including Formal and Informal Spatial Planning in Latvia, Estonia, Åland Islands of Finland, and Sweden

5.1. Overview of Spatial Planning in Latvia

In Latvia, the overall development planning system is determined by the Development Planning System Law, while the Spatial Development Planning Law focuses on spatial development planning at all governance levels. To pay more attention to the involvement of various groups of the inhabitants in the development planning, regulation on the Procedure for Involvement of the General Public in the Development Planning Process was adopted in 2008 [19]. The purpose of the regulation is to foster an effective, open, inclusive, timely, and responsible involvement of the general public into the development planning process, thus increasing the quality of the planning process and ensuring the compliance of planning

results with the needs and interests of the population. The regulations on municipal spatial development planning documents and on planning region spatial development planning documents stipulate the involvement of the public in the preparation of spatial development plans [20,21].

National level. According to the legislation, at the national level, the following spatial development planning documents shall be elaborated: the Sustainable Development Strategy for Latvia and the National Development Plan. The Sustainable Development Strategy for Latvia is hierarchically the highest national level long-term planning document, which sets out the long-term development priorities and the spatial development perspective of the state. It is followed by the medium-term planning document, the National Development Plan, which defines priorities for sectoral policies, territory development and tasks and activities to be implemented thereof, as well as sources of financing. [22].

Following the Sustainable Development Strategy and National Development Plan, sectoral policy development planning documents shall be elaborated for a medium-term. The Regional Policy Guidelines 2021–2027 is the main medium-term policy planning document, which determines the regional policy of Latvia and elaborates on the National Development Plan. It provides directions of action and tasks in the field of regional development [23]. Development of a maritime spatial plan and national long-term thematic plan for public infrastructure development in the coastal area was introduced in 2014 [24].

Regional level. At the regional level, the sustainable development strategy and the development program of a planning region (for each of the 5 planning regions in Latvia) shall be elaborated. The sustainable development strategy of a planning region is a long-term spatial development planning document, specifying the vision of the long-term development, strategic objectives, priorities of the planning region, and the spatial development perspective in written and graphic form. The development program of a planning region (medium-term) shall contain the current situation analysis, tendencies, and forecasts, as well as information regarding the developing process of the development program, and shall define mid-term priorities, the set of measures for the implementation thereof and the procedures for monitoring thereof [25].

Local (municipal) level. At the local governmental level, the following planning documents shall be elaborated: the sustainable development strategy, the development program, the spatial development plan (a comprehensive plan), a local plan (for particular areas), and a detailed plan (for specific development areas/sites). The sustainable development strategy of a local government defines the vision of the local government's long-term development, strategic objectives, development priorities, and the spatial development perspective in written and graphic form.

A local government development program (medium-term) shall include the analysis of the current situation, tendencies and forecasts, as well as information regarding the developing process of the development program, and shall define mid-term priorities, the action and investment plan, the number of resources necessary for the implementation of the development program, and particular procedures for monitoring of the development program. A local government development program, which is developed in an integrated manner, is a prerequisite to attract support from the EU funds.

The spatial development plan of a local government may be detailed in a local plan. After the sustainable development strategy comes into effect in a local government, the spatial development plan may be amended in the local plan, insofar as the local plan is not in contradiction with the sustainable development strategy of the local government [26].

Village (community) level. The formal development planning system does not provide a framework for planning at the village/community level in Latvia. It is a voluntary-based process, which can be initiated by informal groups of citizens. Although there are several examples of elaborated village plans, their implementation so far was not successful, due to the lack of support, including from public governance. Nevertheless, to attract the funding for local initiatives from the EU Agriculture Fund for rural development (LEADER approach), local action groups (LAG) shall elaborate local action plans, which define and

justify priorities and necessary changes in the territory covered by the LAGs. This process is regulated by the regulations of EU funds attraction.

5.2. Overview of Spatial Planning in Estonia

National level. The hierarchically highest national level long-term planning document is the national spatial plan Estonia 2030+. The national spatial plan is a strategic schematic document aiming to achieve the expedient utilisation of space on the scale of Estonia as a whole. The national spatial plan is being prepared for the entire territory of the country. It defines the policies and trends for sustainable and balanced national spatial development. The purpose of the plan is to obtain spatial bases, informed by the specific character of the environment, for shaping settlement, mobility, national engineering infrastructure, and regional development [27].

In 2017 the government of Estonia initiated a thematic national spatial plan for maritime areas. The Estonian maritime spatial plan is a tool for the long-term planning of the use of the sea, which balances the social, economic, cultural, and environmental interests and needs. Maritime spatial planning enables the determination of where and under what conditions the implementation of different human activities in the marine area is most reasonable. This is to ensure the economic benefits resulting from the exploitation of marine resources, as well as the value of the sea and coastal areas as socially and culturally important areas, keeping in mind that any human activity must be based on the achievement or maintenance of the good status of the marine environment [27,28].

Regional level. Regional development planning is directed by the Regional Development Strategy 2014–2020. The key place in the regional development in Estonia is held by the development of centres and making better use of regional differences [29]. Following the Regional Development Strategy, the state is working to ensure consistent growth in all areas, applying the unique potential available due to each area's peculiarities. The Estonian government ratified this strategy and its implementation plan for 2014–2020 in 2014. The strategy focuses on the development needs of all Estonia's regions. The government is investing more than previously in the improvement of work availability and services in areas, which have been adversely affected by urbanization, by emphasizing the strengths and unique aspects of each region.

Main strategic goals are divided into four major groups:

- An environment for households and enterprises in the active regions, which supports their wholeness and competitiveness. To shape a balance regarding the draw of larger urban centres with stronger active regions across Estonia, having improved environments for living and entrepreneurship as well as diverse work service, and activity opportunities.
- An environment in major cities that promotes competitiveness in the international economy. To increase the importance of urban areas as centres of growth for an innovative and science-intensive economy with the help of an increasingly attractive living environment.
- Exploiting region-specific resources with greater skill. This promotes specialization in growing areas of competence and enterprise according to region-specific conditions, and increases clarity in the uniqueness of different areas.
- Greater connectedness and ability to grow. For regions to achieve a stronger ability to develop by greater inter-regional connectivity and increasing efficiency in regional cooperation and capacity for growth.

Regional (national and local as well) development planning is regulated by the Planning Act (PLA) [30]. PLA aims to create, through spatial planning, by promoting environmentally sound and economically, culturally, and socially sustainable development. These are the preconditions that are necessary for democratic, long-term, and balanced spatial development that takes into account the needs and interests of all members of the Estonian society to occur.

For each county, a regional development plan is implemented [31]. A county-wide spatial plan aims to define the principles and directions of the spatial development of the entire county, or a part thereof, or another region. A county-wide spatial plan is prepared primarily to express cross-border interests and to balance national and local needs and interests regarding spatial development. County-wide spatial plans are the basis for the preparation of comprehensive plans.

For example, Saaremaa County Plan 2030+ was implemented by the Minister of Public Administration in 2018. The main purpose of it is to balance the national and local interests, consider the local situation as well as to support the county's spatial development, and ensure balanced and sustainable settlement structure and quality of life in the situation where the population of the county is shrinking and ageing [31].

Local (municipal) level. The functions and competence of a local authority include the organisation of spatial planning in the rural municipality or city. The instrument that directs spatial strategic planning and spatial development in the local municipality is a comprehensive plan. It is mandatory for every municipality. A comprehensive plan aims to define the principles of and directions in the spatial development of the entire territory of a rural municipality or city or a part of such territory.

The PLA sets some functions of a comprehensive plan, such as: to specify the conditions directing the development of human settlement; to define the boundaries of areas of repeated flooding on the coastline; to set the high water marks of internal bodies of water with an extensive flooding area; to specify the conditions to ensure the functioning of the green network and to determine the restrictions resulting from such network; to state the conditions of public access to shore paths; and to extend or reduce the building exclusion zone of the shore or bank. The functions to be fulfilled by a comprehensive plan are decided following the spatial needs of the local authority and the purpose of the plan. For example, Saaremaa municipality currently has 22 comprehensive plans in force. In 2018, Saaremaa's local council initiated by a resolution the preparation of a new comprehensive plan of the entire territory of the new municipality [32].

To implement the comprehensive plan and to create an inclusive spatial solution for the planning area, a detailed spatial plan is prepared to plan construction works. The detailed spatial plan grounds initialization of construction works.

Village (community) level. In Estonia, there is no formal village and community planning stage or practice. The level of a municipality (local government level) involves village planning. The comprehensive planning process gives possibilities to plan and work on different levels, including village visions. This is a good way to connect visions of different levels. Formally possible ways may not be the best solution, because informal ways may be more attractive and efficient for locals to negotiate and agree on village visions.

5.3. Overview of Spatial Planning in the Åland Islands of Finland

The Åland Islands have an autonomous governance model, which means that they have their own legal rules on some issues and all planning processes are formal.

National level. Åland has a law called "Plan-och bygglagen" [33] (the Planning and Building Act). The purpose of this law is to regulate land use and construction, so that: the conditions for a good living environment are created and preserved; an ecologically, economically, socially, and culturally sustainable development is promoted; and cultural-historical values are preserved.

With planning and building permits matters, the following must be observed: the provisions of the Act on nature conservation; the Act on forest management; the Act on environmental impact assessment and environmental assessment; the Act on environmental protection; the Act on the protection of culturally valuable historical buildings; the Act on ancient monuments; the Act on the protection of the maritime cultural heritage; the Act on the application to the Åland Health Protection; and the Water Act for the Åland.

Local (municipal) level. It is a municipal matter following the Planning and Building Act to decide the planning of the use of land and water. Each municipality must have

a current municipal overview that covers the entire territory of the municipality. The municipal overview shall indicate the direction for the long-term development of the physical environment and guide decisions on the use of land and water areas and how these will be changed and preserved.

The regulation on land use and development within the municipality is provided through general and detail plans. The general plan sets out the main features of land use in the entire municipality or part of it. The detailed plan specifies how a limited area of land in the municipality should be used and built.

When the draft plan is drawn up, Åland municipality and other bodies, legal entities, and persons affected by the planning process are able to consult and express themselves in writing or orally. The purpose of the hearing is to improve the decision basis and provide opportunities for transparency and influence. The submitted proposals are considered, and the results are communicated to the public (stakeholders). Before a plan is adopted, the municipality must “exhibit” the proposal for at least 30 days. Municipal members and others have the right to submit comments on the plan proposal in writing during the exhibition period.

The municipality handles the planning, controls, and supervision of construction in its territory. If necessary, the government of Åland can decide on land use for certain important social functions or for certain purposes that are of great importance to the society, e.g., traffic networks, harbours and airports, energy production, and waste management.

The level of a municipality involves village planning. There is no expert opinion on the level of village planning. Through the Coast4us project, we have learned how important it is to involve local people and their knowledge as well as municipalities and other local operators at an early stage in various planning processes and decisions. This is to increase the understanding of the population on how to plan the coastal zone in the long-term and in a sustainable way.

5.4. Overview of Spatial Planning in Sweden

National level. Swedish planning processes are influenced by EU directives, especially legislation concerning environmental issues. There are several laws and regulations on how one can build and shape the Swedish environment (in all aspects). There are plans for municipalities and regions, but there is no national planning for the entire territory of Sweden. However, the state can affect the plans of municipalities and regions with national goals and interests. Based on the Planning and Building Act, the county administrative boards should make sure that national targets are realised and that everyone considers the national interests which exist. The actions of county administrative boards can have a positive or negative impact, including on the health and safety of people, and the risk of accidents or floods.

Regional level. Regional planning works with larger areas than municipalities. Regions coordinate planning across municipal borders. These plans exist so that each region can develop based on its circumstances.

Local (municipal) level. The municipality works with physical planning. Physical planning is about how to use land and water areas, where buildings and roads should be located and how they should be designed. The municipalities follow the Planning and Building Act. There are three types of municipal physical plans: structure plans, detailed development plans, and special area regulations. The structure plan should cover the entire municipality’s area. It displays how the municipality would like the city and land to be in the future and which areas the municipality thinks should and should not be used for building purposes. Detailed development plans have rules for where new buildings may be located and how they should appear. Special area regulations are based on the structure plans and detailed development plans. For instance, they may ground the decisions about the territories of holiday houses [34]. Through the networking in Coast4us project, cooperation with the colleagues from Norrköping municipality was established. They contacted local associations (informal community groups). In cooperation, it was

possible to listen and learn how to comply with the Planning and Construction Law, and to use the planning process to create better products in the long run.

When analyzing the spatial planning systems of different countries, it can be concluded that the governance of spatial planning in the explored countries of the Baltic Sea region each work differently. However, spatial planning in general and the planning systems are similar, as they include the national, regional, and local government levels. No country has a formal level of planning in the village or community. In all countries, the most direct and closest public involvement in the spatial planning process is at the local government level. Local governments are responsible for both sustainable spatial development planning and land use planning.

6. Comparison and Evaluation of Formal and Informal Spatial Planning Process in Latvia, Estonia, Åland Islands of Finland, and Sweden

In this section, the authors have used information and conclusions from parallel and previous research conducted by individual study authors on the phases [5] and methods [18] of public involvement in spatial development.

According to the assessment of different spatial planning levels in Latvia, Estonia, Åland Islands of Finland, and Sweden, the involved experts prepared the reports. They summarized the results on mobilization, planning, implementation, and monitoring ranked by the municipal role in planning, strengths, and weaknesses (see Table A1 in Appendix A).

Comparing the reports by the Latvian, Estonian, Finnish, and Swedish experts, there is evidence that the spatial planning process is associated with a hierarchical structure. Long-term development documents at national, regional, and municipal levels (keywords: sustainability, efficiency, resources) provide the main guidelines for site maintenance and use.

When analysing the involvement of local community (specific coastal territories in each country case) at lowest and closest level for an individual, it has been concluded that at the beginning of the planning process (mobilization), municipalities in all participating countries invite citizens and stakeholders (informal groups) to get involved in the planning process due to the dissemination of information and discussions. All countries' experts emphasized that the information is sufficient for the initial planning process. The weakness of the initial planning phase lies in the lack of communication with informal population groups.

In the spatial planning process, the local authorities have an information base (legislation, statistics, reports, opinions) to carry out the planning work. Experts emphasized that there is insufficient information about specific places and objects, and their functionality. There is information that in Åland, the autonomy function allows for extensive use of information. Informal groups do not participate in the planning process (document preparation), but they participate in the discussion of plans that have already been developed before they enter into force.

The plan is implemented by the municipality, following the developed plan, and granted funding. Both the plan as a planning tool and the implementation process are public. As a weakness, experts mentioned the impact of external factors that can change the course of the project, including various communication barriers that can cause controversy. Experts did not mention the role of informal groups in the implementation phase of the plan.

During the control phase, the municipalities monitor the implementation of the plan and provide reports following the established regulatory framework. At this stage, the availability and operability of the information are important factors. Experts mentioned the process was difficult to monitor, but did not mention the role of informal groups in the control process.

To better understand the benefits and challenging issues of the project Coast4us implementation process, an expert survey of responsible persons involved in the project was conducted. The essence of this survey was to assess the impact of the formal and

informal spatial planning process in the specific coastal conditions, considering community involvement. The significance scale from 1 (insignificant) to 10 (significant) was used in the survey.

Significance averages range from 4.7 to 7.7, which is quite wide. In the mobilization phase, the significance indicators are closer (6.0–7.3), which can be explained by the great importance of village development and sustainability. At the planning stage, there is a larger range of indicators of significance (5.4–7.7), which can be explained by the ambiguity of the goal definition and planning process (the coordination of opinions). The averages of the significance of the implementation phase are slightly scattered (5.6–6.8), which can be explained by the compromise reached in the planning process, but more in-depth research would be needed. In the monitoring phase, which is closely related to the implementation phase, the significance indicators of the obtained results are scattered (4.7–6.9), which can be explained by the evaluation of the process and the result (see Figure 2).

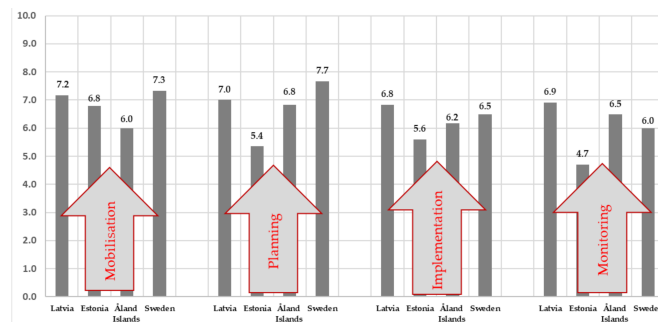


Figure 2. The summary of survey significance indicators (formal and informal spatial planning process).

Based on the expert evaluation summary of the spatial planning process (mobilisation, planning, implementation, and monitoring) and the answers provided by experts, the theoretical models of the functioning of informal organizations, as well as the results of expert discussions, a model has been developed by all research authors.

The results of the study show that mobilisation, planning, implementation, and monitoring binds to Eriksson's model of collaboration [7]. A successful project is based on a concerted goal that is in the interest of the parties involved (central government, local government, and informal groups). Collaboration in planning is essential to achieve the goal, as citizens are often more aware of the situation and they will be the ones who will use the results. Stakeholders' participation in project implementation should be ensured as it avoids conflict situations, but monitoring ensures more efficient use of resources and a result of much higher quality. The members of local communities can be mobilized if their goals are clear, and these goals meet their interests. The spatial planning process should be open, involving and listening to the local community, which in this study were coastal communities. In the process of implementing the plan, the local community must be interested, and it will bring good results (and aid in future cooperation). A good result is achieved by monitoring the progress of the project and efficient use of resources, and all of this is confirmed by the informal groups (see Figure 3).

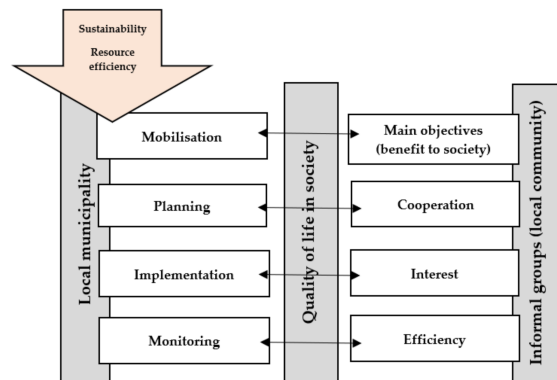


Figure 3. Model of cooperation between municipalities and territorial communities in the spatial development planning process.

In addition to the aforementioned and conducted comparative research, there is a clear need to comply with the national regulatory framework in the process of community engagement while creating new and modern solutions for informal and motivated public involvement in the spatial planning process. At the same time, the study exploring different countries with the unifying object of the Baltic Sea, highlights the specifics of coastal area spatial planning. Therefore, regarding the usual sustainability factors, particular attention should be paid to natural and environmental values, conservation, and development of ecosystems, etc. These specific features, as well as the changing and rapid growth of society in the direction of community development, offer new directions of research for both academics and scientists.

7. Conclusions

The hypothesis of this study is confirmed because there is evidence that spatial planning systems are in the process of transformation and in fact “approach” the local population, as the focus of development shifts to the needs of a particular person in a specific place (local community) using new informal methods.

This study is a result of an extensive and in-depth collaboration between participants from different countries and spatial planning traditions of the Baltic Sea region, but with a common interest in formal and informal spatial planning processes in coastal areas.

According to research questions mentioned in the introduction of this study and the multi-element research conducted, it can be concluded:

- both similarities and differences of spatial planning approaches have been detected in different countries that are placed around one water object, namely the Baltic Sea. All countries that have been analyzed have hierarchical planning systems and historically have used formal “top-down” spatial planning approaches. In recent years, spatial planning systems are changing to more “bottom-up” systems, but each country is conducting these processes in different ways. This makes risks to sustainable governance of the Baltic Sea and coastal communities;
- in all countries standard spatial planning process steps (mobilization, planning, implementation, and monitoring) are done, but it is clear that when a new “bottom-up” system is implemented, informal and more community-involved activities are done in step mobilization and planning. However, steps implementation and monitoring is mostly done by municipalities and civil servants. This, by opinion of the researcher group, leads to situations in which the community loses interest in being active inhabitants, because local community can not affect real implementation of their ideas and needs. Besides, they are not a part of change management of sustainable development.

This creates a large risk of local conflicts as well as causing loss of interest of local development.

It is important to take into account the condition that coastal territory planning has very specific circumstances, and is connected with one water object that does not have physical borders, but sustainable development of these territories is very connected with this main resource (Baltic Sea). Mostly, development problems are similar, but they can be solved only when actions around the water object are equivalent. From our point of view, when different countries have mostly hierarchical planning structures, it is important that there are international agreements about main sustainable actions that are supplemented with “bottom up” solutions at the local community level, and at the same time experiences of local solution best practices are shared around coastal areas of one water object with the goal of sustainability and harmonization of actions.

The authors of this study propose to authorities of the spatial planning process for coastal areas around the Baltic Sea region to create a system, model, or even regulation, to make local (coastal) communities a part of the planning system at all phases (including implementation phase). This would reach such goals as: sustainable development, a “bottom-up” approach, and active citizenship. In addition, there is a proposal for better communication between countries, municipalities, and local communities around one water object to share best practices and harmonize actions.

Author Contributions: E.P., Conceptualization, Formal Analysis, Investigation, Methodology, Resources, Supervision, Validation, Roles/Writing—Original Draft, Writing—Review & Editing. S.G., Conceptualization, Formal Analysis, Funding Acquisition, Investigation, Methodology, Resources, Project Administration, Supervision, Validation, Roles/Writing—Original Draft, Writing—Review & Editing. A.A., Formal Analysis, Investigation, Methodology, Resources, Writing—Review & Editing. A.L., Conceptualization, Data Curation, Formal Analysis, Investigation, Methodology, Resources, Software, Validation, Visualization, Roles/Writing—Original Draft, Writing—Review & Editing. J.B., Formal Analysis, Resources, Roles/Writing—Original Draft, Writing—Review & Editing. K.K., Formal Analysis, Resources, Roles/Writing—Original Draft, Writing—Review & Editing. I.C., Formal Analysis, Resources, Roles/Writing—Original Draft, Writing—Review & Editing. M.K., Resources, Software. U.K., Resources, Software. M.G., Formal Analysis, Resources, Roles/Writing—Original draft, Writing—Review & Editing. M.P.-P., Formal Analysis, Resources, Roles/Writing—Original Draft, Writing—Review & Editing. C.B., Formal Analysis, Resources, Roles/Writing—Original Draft, Writing—Review & Editing. S.V., Formal Analysis, Resources, Roles/Writing—Original Draft, Writing—Review & Editing. J.H., Formal Analysis, Resources, Roles/Writing—Original Draft, Writing—Review & Editing. I.G., Formal Analysis, Resources, Roles/Writing—Original Draft, Writing—Review & Editing. M.J.H., Formal Analysis, Resources, Roles/Writing—Original Draft, Writing—Review & Editing. All authors have read and agreed to the published version of the manuscript.

Funding: This research was funded by the INTERREG Central Baltic program project “Coast4us” within the P2 project priority—Sustainable use of the common resources, project number 627.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: Not applicable.

Conflicts of Interest: The authors declare no conflict of interest.

Appendix A

Table A1. Spatial planning process steps (mobilization, planning, implementation, and monitoring).

Country	Stage	Strengths	Weaknesses
Mobilisation			
Latvia	The local government invites the village representatives to participate in the planning process, disseminate information in a formal way (website, newspaper, etc.).	Widely available resources for the dissemination of information. Available communication contacts with citizens.	There is no direct daily contact with potential participants. No traditions yet.
Saaremaa municipality Estonia	Invites interest groups to participate in the planning process. Information is disseminated in a formal way (website, newspaper, exchange of formal letters, social media, etc).	Widely available resources for the dissemination of information.	The report does not identify any weaknesses.
Åland Islands of Finland	All interested parties shall be allowed to consult and make their views known in writing or orally where this is appropriate for the purpose and relevant to the planning process.	There is communication with citizens and local organizations.	The locals should be involved at an earlier stage before a proposal is made, communication should begin at an earlier stage.
Sweden	All stakeholders shall be allowed to consult and make their views known, in writing or orally, as appropriate to the purpose and relevant to the planning process. There is no strict national strategy for spatial planning.	There is communication with citizens and local organizations, and national interests are respected.	The report does not identify any weaknesses.
Planning			
Latvia	The local government, based on statistical research, modern solution identification and clustering of working groups, prepares the documents that are publicly discussed and approved within the framework of laws and regulations.	Resources are available for extensive statistical research. Resources are available for research in various industries, attracting both local and foreign specialists. Possible exchange of experience by using gathered contacts.	The use of formalised procedures. The lack of knowledge about specific problems in a specific place. Formal discussion of documents, as well as reliance on the laws and regulations that in the case of Latvia are often fragmented, or there is no available funding or other resources to introduce the regulations.
Saaremaa municipality Estonia	The local government, based on research, knowledge from previous plans, strategies, and information from different involved parties (interest groups, governmental institutions, etc.) prepares the documents that are publicly discussed and approved within the framework of laws and regulations.	Resources are available for extensive statistical research. Possible exchange of experience by using gathered contacts.	Insufficient knowledge about specific problems or possibilities in a specific place.
Åland Islands of Finland	Planning is formal, the island has its legislation, but the planning process follows general national legal norms.	The Government of Åland and other municipalities, authorities, legal persons, and persons shall be allowed to consult and make their views known, in writing or orally, as appropriate to the purpose and relevance of the plan. The purpose of the hearing is to improve the basis for decisions and to ensure transparency and influence.	Municipal members and others have the right to submit written comments on the plan proposal during the exhibition. There is limited time for collaboration in planning.
Sweden	Planning must respect national interests, EU law (special environmental issues).	All stakeholders are involved in the planning.	There is no national planning for the entirety of Sweden.

Table A1. Cont.

Country	Stage	Strengths	Weaknesses
Implementation			
Latvia	Following the approved action plan and investment plan, the local government ensures the implementation of activities.	There are public resources available for the implementation of activities. There are tangible and intangible assets available to ensure the place for the implementation of activities.	Restrictions on the activities directed towards the regulation of statutory acts. Not being “on the site” ** makes it difficult to identify the most effective solution.
Saaremaa municipality Estonia	Following the approved strategic and funding plan, the local government ensures the implementation of the planning document and its principles.	The adopted planning document is public. Principles directing spatial planning are available online.	Planning document may not be flexible enough as there may occur changes in laws, unpredictable developments, etc. (not being up to date). Adopted principles may be understood differently (e.g., because of the wording).
Åland Islands of Finland	According to plan.	About the results of the hearing and proposals based on the different opinions that have been made shall be reported when the plan proposal is presented for the public.	The report does not identify any weaknesses.
Sweden	The planning process and implementation are regional and local in nature.	A better understanding of local conditions, fewer errors in implementation.	The report does not identify any weaknesses.
Monitoring			
Latvia	Following the regulations, the local government draws up regular reports on the progress, informs the Council about the reports, and publishes the reports online.	The data are made available, and there are restricted access databases. There are specialists to perform the work, and the necessary capacity is ensured.	A difficult-to-manage and slow (change) management process. Formal reports based on data collection.
Saaremaa municipality Estonia	Following the Planning Act, the local municipality needs to follow, review, and implement adopted spatial plans.	The planning process is public. There are specialists to perform the work, and the necessary capacity is ensured.	The report does not identify any weaknesses.
Åland Islands of Finland	The municipality handles the planning, controls, and supervision of construction within the municipality.	The report does not identify any strengths.	The municipality handles the planning, controls, and supervision of construction within the municipality.
Sweden	Monitoring shall be provided at all levels, following national interests and regulatory requirements.	The planning process is public. There are specialists to perform the work, and the necessary capacity is ensured.	It is indistinct who has the legal right to appeal the detailed development plans. This confuses and prolongs the process.

** Not being “on the site” – not living in a community on a daily basis, lack of knowledge of the community daily processes.

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Evaluation of Community Involvement in Participatory Process – Lessons Learned in the Baltic Sea Region

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Abstract – For exploring and discovering the main knowledge, experience and practices, four main issues were analyzed: what were the goals of the involved participants regarding the community involvement in the spatial and community planning; what methods were used to extend the involvement of community members; what problems and obstacles did the project participants face, and what were the main lessons learned. This study provides reflections (analysis, comparison and evaluation) on community involvement in participatory process in coastal areas of the Baltic Sea Region by investigating the methods, which were used in community involvement in project participating countries; and its influence in improving local governance of the local territory development.

Keywords – coastal areas, community involvement, lessons learned, participatory methods, spatial planning.

INTRODUCTION

During the last 3 years, with the financial support of the European Regional Development Fund project “Coast4 us” has been implemented. One of the goals of the project was to gain experience in community involvement in village and neighbourhood development in coastal communities around the Baltic Sea in Northern Europe. One of the goals of the project was to learn how to achieve a smart and sustainable community development. The idea of the project was to find the ways to invite most of the members of the local community to get involved in the learning process, gain experience and take active part in community development. According to classical learning theory three basic elements are important in the learning process: the goal, the learning process, and the obtained result [1].

The purpose of the present study is to evaluate the community involvement in participatory process in the Baltic Sea Region according to the knowledge and experience of the participants involved in the project, as well as project target groups – communities of different levels. This study applies a process-oriented approach [2] to the case studies – pilot areas described here – and compares the applied methods of society involvement in specific pilot areas. To achieve the goal, a review of sources was performed, the progress of the project implementation and the provision of knowledge and practice was evaluated, and conclusions were drawn.

The balance between community involvement in participatory process of spatial planning (in the coastal areas of the Baltic Sea Region) needs to be determined as a matter of high priority. Through the Coast4us project, partners address this major challenge and respond adequately to the key issues concerning the community involvement in spatial planning, which in many cases depends on the participatory process.

Defining a precise goal is the basis for successful project implementation. At the beginning of the learning process,

participants need to have a clear understanding of the learning objective (What new experiences will I gain?), which means that the objective must meet certain quality criteria, and these are: the objectives are understood by all those involved in the training; the goal is achievable; the target result is measurable and verifiable. Learning from partner countries makes sense because it stimulates a collective multidimensional and dynamic exchange of experience. Therefore, the Coast4us project allows us to reach this through involved parties who have relevant experience.

Effective participation can be achieved through education, access to useful information, meaningful interaction with government officials and open dialogue [3]. Although the community involvement in participatory process is already drafted in planning documents of all participating countries, it mainly focuses on public hearings to ensure that individual opinions are heard. There is lack of focus on consensus building through all community in specific territory. Meaningful public participation focuses on the process, rather than the ultimate decision [4]. Inclusion of all community residents provides exposure to a healthy mix of perspectives, improving the decision-making process [5]. Therefore, this would benefit the local territory by ensuring informed municipal decisions and greater legitimacy and acceptance of decisions by the local population [4].

Sense of community is a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together – is a reason why coming together, learning and being active was an important precondition to reach the goals of the project [6], [7].

The learning process involves successive steps that lead to the result. The number of steps can vary depending on the complexity of the goal to be achieved and the target audience to be educated (introduction, training, testing, conclusion) [1], [8], [9]. The tools that are used in the task execution process can be intangible (organization, team, leadership style and techniques) and tangible (information technology and other tools).

The obtained result of comparing different approaches shows whether the goal and the process have been correct and reveals the weaknesses of the solution. Different strategies were used to evaluate the experience and knowledge gained in the project. Moran distinguishes between these two principles by defining assessment as “the use of measurements to achieve an assessment of how well a person or group of persons has achieved their learning goals”. In contrast, evaluation “refers to the use of measurements to describe the achievements of stakeholders and to make recommendations” [10]. Reeves' evaluation focuses on evaluating the value and effectiveness of a project. On the other hand, the assessment tool measures the process of gaining practice and

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learning, as well as other human characteristics, and this is essential if we want to improve the process [11]. Depending on the task and content, assessment can be done before, during or after an episode of knowledge and practice [12]. The obtained result is important for further work with local governments and residents.

“Community involvement has been shown to make a positive contribution to planning and development processes. At its best, community involvement can enable: processes to be speeded up; resources to be used more effectively; product quality and feelings of local ownership to improve; added value to emerge; confidence and skills to increase – for all; conflicts to be more readily resolved. Public participation should be an indispensable element in human settlements, especially in planning strategies and in their formulation, implementation and management; it should influence all levels of government in the decision-making process to further the political and economic growth of human settlements” [13].

Spatial planning process includes the discussion of development plans with citizens and different informal groups of population. It is essential to involve as many representatives of different fields and groups as possible in the development process in order to ensure that the needs of the widest possible population are reflected.

Planning of community involvement must be focused on quality and effectiveness of the process planning and designing, by taking into account the following aspects: particular issue, level of participation to be achieved, timeframe and range of stakeholders affected [14].

In this study, after a brief overview about theoretical aspects of community involvement and experience exchange processes (Section 1) the materials and methods of case study (Section 2) are given. The results and discussion (Section 3) consist of the following subsection: 3.1. Goals and objectives in relation to development plans and engaging the community; 3.2. Methods of the community involvement (How the participants tried to accomplish objectives related to involvement of community); 3.3. Obstacles and problems related to the evaluation; and 3.4. Lessons learned from own activities and experience exchange. The discussion contains an analysis of what understandings the participants have shared and how they diverged. Finally, conclusions are listed (Section 4).

I. MATERIALS AND METHODS

This case study was performed in the countries involved in the project – Latvia, Estonia, Sweden, and Finland [15]. The study used the educational methods and activities of residents of the Coast4us project pilot territory communities, the provided feedback, and the benefits gained by the communities. The municipal territories involved in the project in Latvia are Garupe village, Tūja village [16], [17]; in Estonia – Saaremaa island; in Sweden – a small village (Arkösund / Norrköping municipality), a camping site (Ekön / Valdemarsvik municipality), and an unexplored island (Bergön / private investigator in Söderköping municipality); from

Finland: one urban area, the city of Mariehamn, and one rural area, Sund municipality, and Kökar – an island municipality [18].

This study provides reflections (analysis, comparison and evaluation) on community involvement in participatory process in the coastal areas of the Baltic Sea Region by investigating the methods, which were used in community involvement in project participating countries; and its influence in improving local governance of the local territory development. The study applied combined research methods where case study samples of pilot areas and quantitative methods were used. Comprehensive and intensive documentary reviews were made and reports were analysed for the purpose of gaining the knowledge, experience and practices.

Conventional wisdom argues that people do not participate because "they cannot, they were not asked, or they do not want to." Though it oversimplifies the many factors that enter into an individual's decision of whether or not to participate [19].

The present study uses a situation analysis method, which compares pilot territory situations in different countries around the Baltic Sea. Problems and obstacles are summarized from the reports submitted by the project.

Within the framework of the Coast4us project the main methods of community involvement are meetings with local community, eco-mapping, maptionnaire, seminars and education workshop in all participating countries. Mainly based on a review of critical project data and benchmarking and synthesis techniques, the revised main research findings allowed for a comprehensive evidence gathering process.

Learning and experience acquisition methods in projects are widely used and described in various studies. The learning and practical skills model described by González García I [20] is in line with the current situation in project (see Fig. 1).

There are three main phases of the process: data collection and situation analysis; diagnosis of the municipality (opportunities, strengths, weaknesses and threats); and proposal for future development. According to Fig. 1, the students in this model replace the community members who are interested in the spatial development planning of the local community and the implementation of the development plan. During the project, stakeholders from pilot areas were activated: different population groups, municipalities, public administration, entrepreneurs, etc., with the aim to elaborate the spatial planning proposals and development plans.

Many other methods can be used for training and acquisition of practical skills, and it is important to note that knowledge and practical skills can also be transferred by project managers and other professionals.

II. RESULTS AND DISCUSSION

A. Goals and Objectives in Relation to Development Plans and Engaging the Community

The goal of the project is to develop a holistic and inclusive approach for the spatial and community planning process through

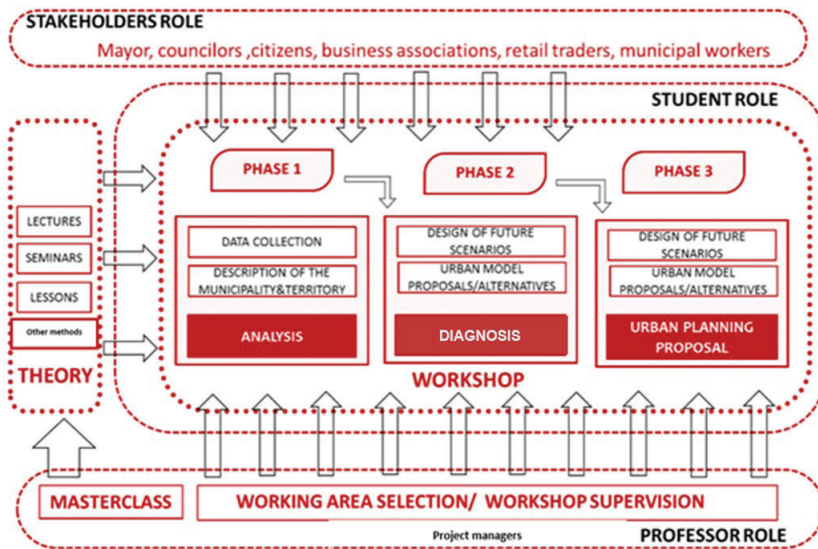


Fig. 1. Hybrid course model scheme, PBL (problem-based learning) workshop + theoretical parallel session [20].

involving stakeholders of different interests and together create sustainable marine and coastal zone plans [21].

The main objective of the project is to create sustainable plans for marine and coastal areas. The partners included are responsible for marine, coastal and terrestrial spatial planning, thus the outcome of the project has a long-term effect. So far, many relevant aspects of interests, e.g., environmental, economic, social or cultural, are not sufficiently recognized in the planning process. In this project, the participating partners try together to analyse missing information and obtain new data to make the planning tools more holistic.

One of the activities of the project is to involve the local actors in the planning process and to mobilize and activate stakeholders with different interests, e.g., tourism, agriculture, nature conservation and fisheries. This could be done by creating new methods and using different process approaches in all participating countries.

The communities involved set the objectives to achieve the above-mentioned goal of the project. For a summary of main and specific objectives see Table I.

The main goal of the project for pilot areas in Finland, Latvia, Sweden and Estonia are sustainable plans with a holistic perspective, where different interests are balanced, both nature, culture and social values, and local demands for economic development.

Comparing the main objectives of the Latvian, Swedish, Finnish, and Estonian projects related to development plans it can be concluded that they are quite similar and differences are noticeable only in details and scope.

In all cases, the involvement of various stakeholder groups in the spatial and community planning and the implementation of the plans is dominant.

B. Methods of the Community Involvement

It has been investigated and summarized before that there is a model, which proves that three important components influence an individual's participation in voluntary neighbourhood organizations and that sense of community plays a catalytic role in mobilizing the three components. The three components are the perception of the environment, one's social relations, and one's perceived control and empowerment within the community [22].

To include three previously mentioned components, it is important to work with communities and to use different methods to involve the public and gain new knowledge and experience. The choice of methods may be related to a specific situation in the partner country region – pilot area, the number of people acquiring information, knowledge and experience, the degree of human involvement.

Community members' involvement has a wide range of activities [14]:

- informing (providing the public with objective information to help them understand the problem, alternatives and solutions);
- consulting (obtain public feedback on analysis, alternatives, or decisions);
- involvement (working directly with the public throughout the process);

TABLE I. PROJECT OBJECTIVES RELATED TO DEVELOPMENT PLANS AND ENGAGING THE COMMUNITY.
DEVELOPED BY THE AUTHORS ACCORDING TO [21]

Main goals and objectives	Specific goals and objectives
Arkösund (Sweden)	
Sustainability plan for the area. Initiation of 2 development plans – one for the central-area and one for the camping-area.	Participation of local stakeholders and other partners at an early stage of the planning.
Ekön Valdemarsvik (Sweden)	
A zoning plan rooted in the view of public and citizens. (There is no existing zoning plan for the pilot area and there are a lot of different conflicts connected with this place, and people have different opinions on how the area should be developed in the future)	Involvement of the public / target groups from the start to finish in the zoning planning process.
Bergön (Sweden)	
Part of the plan that the municipality has to develop. The area is in the Swedish National park planning – solutions / decisions how to organize access for people to the area and at the same time secure the high nature values.	Involvement of different target groups through different activities.
Saaremaa (Estonia)	
Common ground with national Maritime Spatial plan must be found (input for integrated local, coastal and marine spatial planning process). Improvement of planning culture.	Village territory planning, involving social groups of all levels.
Tūja (Latvia)	
Preparation of village development plan with a high level of detail – existing county spatial plan does not resolve several issues (very different views on the development of the area).	To find a dialogue between different groups of society. To promote integration and cooperation of different groups of local community in the planning process. Improved involvement of local community – a key in addressing problematic issues.
Garupe (Latvia)	
Development of the village plan. Implementation of one activity of the village plan.	Activation of inhabitants.
Mariehamn and Sund (Åland, Finland)	
Long-term, sustainable development of water and land (the end product – a green-blue plan for each area). The overall purpose is water of good quality, climate adaptation at low-lying areas, strengthened biodiversity and increased recreation and tourism.	Involvement of everyone – children, general public, politicians, traders, etc., and also taking into consideration disabled people, etc. Information and education as a tool for achieving long-term sustainable coastal zone planning. Cooperation with the locals by finding solutions to minimize the nutrient load.
Kökar (Åland, Finland)	
Elaboration of the municipality development plan for a long-term sustainable development of the usage of water and land.	Engaging of all inhabitants (all-year as well as seasonal) and stakeholders such as businesses, the third sector, local politicians and the government.

- collaboration (working in partnership with the public, including the development of alternatives and the identification of solution);
- empowering (leaving final decision making to the public).

The project partners involved in the project widely use the classical methods of community engagement – workshops, meetings and trainings. These methods allow to make decisions and control the results achieved.

- Workshops are designed to exchange the information and the format can vary:
 - general workshops – discussion of goals, setting tasks to achieve goals and discussion (relatively large number of stakeholders); long discussions, confrontation is possible;
 - thematic workshops – discussion and solution of a specific topic (the number of participants is usually much smaller), for example, selection of a planning object, discussion of elements in the plan, fund raising, search for project executors.
- Meetings, working meetings, meetings with stakeholders – limited number of participants, solving specific tasks. Meetings can take place on the premises and off-site. To attract participants, it is recommended to hold the meeting at a site in the local community, rather than in formal place (city hall, etc.). In relation to the meetings, effective is the so-called “early dialog” method where the public is included in the early stage of the planning process. This procedure somewhat differs from regular practice when the public is commonly addressed at a later stage, when Community members involvement the plan proposals have already been developed.
- Training – training of small stakeholder groups on specific topics, such as site-specific biodiversity, sustainable development, detailed plan, and other topics.

Besides classical methods, different alternative methods have recently been used to get the public involved. These methods are:

- “Walk and talk” principle in discussing important issues – informing stakeholders (training, problem presentation) at a specific site, for example, a specific village gathering at a site where specialists explain the current situation, offering solutions. This activity commonly is addressed to a smaller group of targeted and closely involved stakeholders, but such activities could be arranged for a wider audience as well.
- Informal meetings – unplanned meetings of activists with the villagers, where various topics related to the quality of life of the villagers are discussed. An alternative form of dialogue meetings is meetings and discussions with the public at events other than formal dialogue meetings, for instance at public events in the local community such as fairs or festivals.
- Hiking / cycling route – a developed, previously announced route, which shows and discusses architectural values, environmental objects, natural values, such as the condition of historical buildings, road infrastructure,

dunes, springs, wild plants and animals. Such inspirational walks / bike rides could be done with experts – a small group of villagers (7–12 people) together with an expert go along a certain route and discuss the current situation and problem-solving techniques.

- Special events, e.g., The Baltic Sea Day – a forum to discuss joint international action on the pollution of the Baltic Sea and the problems of restoring normal ecological status at sea [23]; inspirational biodiversity day – an occasion for raising awareness of the species and ecosystems as well as an opportunity to foster concrete action in their defence.
- Idea collection map (mind map) – a mind map is a grid pattern in which information is stored, arranged, and prioritized using keywords or words and images that evoke memory. Each memory trigger (keyword or image) included in the mind map acts as a key to “open the door” to facts, ideas, and information. Graphically, an idea map is displayed as a diagram in which the main keyword (idea or topic of the map) is connected to related concepts. Usually, a mind map has a dynamic shape and layout [24], [25].
- Activities with children – exhibition of children's drawings and other figurative works on the theme of nature, sea, work, etc.
- Web-based engagement – different on web-based processes such as web site, online discussion forums and blogs, social networking, ratings and voting, interactive TV.

Brief summary of engagement methods in the context of the project can be seen in Table II.

Workshop sessions in Kõkar should be especially highlighted, which used a combination of several tools:

- Cause-effect diagram, the “fishbone”. “This tool helps to identify, sort, and display possible causes of a specific problem or quality characteristic. It graphically illustrates the relationship between a given outcome and all the factors that influence the outcome”. This type of diagram is sometimes called an Ishikawa diagram because Dr. Kaoru Ishikawa, a Japanese quality control statistician, invented it in 1943. The design of the diagram looks much like a skeleton of a fish. Therefore, it is often referred to as the fishbone diagram [26].
- “Six Thinking Hats” technique involves the use of metaphorical hats in discussions. Participants put on hats to indicate directions of thinking. The colour of each hat is related to a function: white hat focuses on the data and information; red hat looks at the topic from the point of view of emotions, feelings, and hunches; black hat uses experience, logic, judgment, and caution to examine the difficulties and problems; yellow hat is concerned with benefits and values; green hat imitates creative thinking and movement, to generate new ideas and solutions; blue hat concentrates on reflection, metacognition and the need to manage the thinking process [27].
- Comparison of alternatives is a method of group decision-making where facts are separated from assumptions to create alternative solutions, common criteria are judged

TABLE II. COMMUNITY INVOLVEMENT METHODS BY THE PROJECT PARTICIPANT COUNTRIES
[DEVELOPED BY THE AUTHORS AND SUMMARIZED FROM THE PROJECT REPORTS]

Used Method / Country	Latvia, objects of analysis: Tūja, Garupe	Sweden, objects of analysis: Arkösund, Ekön, Bergön	Finland, objects of analysis: Mariehamn and Sund, Kökar	Estonia, object of analysis Saaremaa
General workshops	x		x	x
Thematic workshops	x	x	x	x
Workshop sessions using combination of different tools			x	
General meetings (at the beginning and finish of planning)	x	x	x	x
Meetings with stakeholders	x	x	x	x
“Early dialog” meeting		x		
Informal meetings		x		
Working meetings				x
Trainings	x			
Walk and Talk	x	x		
Hiking / cycling route			x	
Special events			x	
Mind map			x	x
Surveys		x	x	
Activities with children			x	x
Web-based engagement	x	x	x	x

before ranking and both the strengths and the weaknesses of the alternatives are open for everyone to see.

Besides, Kökar used a method that they call “demologue” (from Greek *demos* = *people* and *logos* = *talk*) when the whole community is engaged in talking and listening on a subject with the help of formal and informal, small and large meetings, word-by-mouth, social media, printed local media, newspapers and broadcasted media. The plan is divided into seven areas, which operate with facts about the project and use optimism, pessimism, feelings and creativity of community members to make decision.

C. Obstacles and Problems Related to the Community Involvement

To increase the quality of life of the community members and preserve the diversity of the natural environment, especially the one connected with sea resources, it is important to understand the specific spatial and community planning problems of coastal territories associated with decision-making and implementation of measures and the obstacles associated with these issues.

Table III summarizes the main problems and obstacles defined by the project participants.

All spatial and community planning problems and obstacles of coastal areas are divided into internal (within the community) and external (outside the community). The main internal obstacle in spatial and community planning of coastal areas is lack of communication, regardless of country and region, and weak involvement of different social groups in development processes is often pointed out. During the project, the specific features of the coast have brought to the fore several common obstacles: insufficient coastal and environmental management, excessive regulatory enactments, as well as summer-year-round population conflict. On the other hand, external barriers are similar regardless of the country and region: incomprehensible or over-regulated planning process or its absence, as well as communication problems with local elected government and higher-level government.

D. Lessons Learned

Within the framework of the project, its participants (project implementers and community members from four countries)

TABLE III. PROBLEMS AND OBSTACLES OF COMMUNITY INVOLVEMENT [DEVELOPED BY THE AUTHORS AND SUMMARIZED FROM THE PROJECT REPORTS]

Participant	Field of analysis	Problems, obstacles
Latvia, objects of analysis: Tūja, Garupe	Internal	Conflict of interest (locals, summer residents); population diversity (various nationalities); insufficient communication; isolation and non-involvement of summer residents; low involvement of residents in community development planning, joint public activities; undeveloped coastal infrastructure.
	External	Communication barriers with the municipality (lack of understanding information).
Sweden, objects of analysis: Arkösund, Ekön, Bergön	Internal	Collaborations; difficulty in prioritization of actions; conflict of interest (whether area should be preserved or developed); negative reaction of landowners; small labour market; contaminated seabed; problematic geotechnical conditions; different attitude to the importance of biodiversity in cities and in agriculture; awareness of the archipelago.
	External	Lot of regulations (special regulations regarding planning in coastal areas); lack of trust in authorities; private developer is not the priority of the local municipality; influence of different circumstances (shipping routes, wind farm, military areas, environmental protection, fish migration, water currents).
Finland, objects of analysis: Mariehamn and Sund, Kõkar	Internal	Collaborations; land and coastal use (biodiversity); nitrogen pollution (does not coincide with the goals of farmers); communication.
	External	Weaknesses in the planning.
Estonia, object of analysis: Saaremaa	Internal	Collaborations; engaging different social groups; lack of comprehensive understanding and vision; problems of approaches to the planning.
	External	Planning process and spatial practice are incomprehensible; Conflict of interest (coastline is the building exclusion zone but pressure to build is growing).

gained new knowledge, experience and practices on how to cooperate in the implementation of common interests for successful community involvement in participatory process.

Evaluating the information provided by project participants and experts, the main lessons learned (from the project preparation to the implementation phase) were summarized. The main

findings emerge from the context and are related to the spatial and community planning of the local territories, involvement of the communities in the planning process, possible attraction of funds, and control related to the implementation of projects (see Table IV).

TABLE IV. THE MAIN LESSONS LEARNED BY EVALUATING COMMUNITY INVOLVEMENT PROCESS [DEVELOPED BY THE AUTHORS AND SUMMARIZED FROM THE PROJECT REPORTS]

Participant	Lessons learned
Latvia, objects of analysis: Tūja, Garupe	It is important to involve all community members (including seasonal inhabitants) in the community planning process and implementation of the development plan. Motivation of community to participate and focus on alternative involvement methods. New knowledge about GIS (layers and groups of influencing factors) as a tool for communicating information and basis for long-term bottom-up planning by inhabitants. The community members' care about (interest in) nature diversity, clean environment and sustainable development.
Sweden, objects of analysis: Arkösund, Ekön, Bergön	Involvement of different target groups in the planning process by using new form of dialogue. Planning and development processes should be more visible to the public. The use of external consultancies for making the planning together with land owner. Knowledge about sharing of managers' and scientists' knowledge as well as inclusion of local knowledge, experience about landscaping.
Finland, objects of analysis: Mariehamn and Sund, Kõkar	A new approach to achieve better local engagement and cooperation between different interest groups. Building a better understanding about ecosystem services in the sustainable planning process. Knowledge about eco-mapping and maptionnaire (Community Engagement Platform). It is important to involve local people at an early stage in the planning process so that people understand what needs to be done. The project should try to include functioning green infrastructures, which are important for neighbourhood (village) planning.
Estonia, object of analysis: Saaremaa	Local community residents and their informal groups should be involved in the territory planning process, as residents have a better understanding of the situation and are better at problem solving. The balance between planning and protecting should be found. Working with primary schools and engaging the community members to evaluate and to take care of the environment.

Evaluating the lessons learned from the project development and implementation, the main keywords are – caring for the environment in which we live (village and neighbourhood). Key findings are: the importance of community member involvement; protection and conservation biodiversity and ecosystem; cooperation at many levels (various social groups, municipal institutions, state institutions); and involvement of entrepreneurs.

The knowledge and experience to be singled out are: modern information and communication technology tools as a community engagement tool – GIS experience (Latvia) [28]; need to increase the knowledge of the community members about ecosystem services (Sweden; Finland); experience and lessons learned from the integration of green infrastructure and eco approach into development plans of spatial and community planning (Finland) [29]; the importance of involvement of children (Estonia).

CONCLUSIONS

Evaluating the process of gaining experience during the project implementation, four basic questions were identified: 1) goals and objectives; 2) methods of the community involvement; 3) obstacles and problems; and 4) lessons learned.

In the project the main goals of pilot areas are sustainable plans with a holistic perspective, where different interests are balanced, both nature, culture and social values, and local demands for economic development.

Project contributes to the improvement of spatial development planning process, including society involvement in territorial planning and implementation. Local collaboration and involvement are very important for the success of implementing sustainable coastal plans.

Comparing the main objectives related to development plans of the pilot areas it can be seen that they have notable similarity in differences in details and scope.

In all cases, the involvement of various stakeholder groups in the spatial and community planning process and the implementation of the development plan is dominant. Involvement of the general public and interest groups in ecological, cultural and social issues as well as in the planning process results as a better accessibility to information in the planning phase and opportunity to voice their concerns and suggestions during the planning process.

The experience with public involvement in the planning process during the pilot studies will provide a better starting point for future studies.

During the implementation of the project in the pilot areas, many methods of community involvement were used and new methods were found. All project participants worked with the classical methods of public engagement: workshops (general and thematic); meetings (thematic meetings); small stakeholder group training.

However, other alternative methods were used during the project implementation: a map of idea collections and an exhibition of children's drawings on a specific related topic (Finland, Estonia); special events such as the Baltic Sea Days and Biodiversity Days

(Finland); “walk and talk” principle of conversation and collaboration (Latvia, Sweden); informal meetings and “Early dialog” meeting (Sweden); hiking along the route with experts (Finland), etc. In Kõkar pilot area workshop sessions combining different tools and self-developed method “demologue” were used.

Assessing the problems and obstacles of community involvement in spatial planning, the internal (inside community) and external (outside community) features resulting from the project participants' reports were assessed. The main internal spatial and community planning problems and obstacles of coastal areas are: lack of communication between different social groups of the community members, entrepreneurs and farmers; different attitudes of entrepreneurs, farmers and society (interests – development of production and preservation of the natural environment) towards the natural environment and natural diversity; insufficient cooperation in solving various problems of the local community. The biggest external spatial and community planning problems and obstacles of coastal areas are: the lack of cooperation between the village and neighbourhood community, local government and state institutions, complicated laws, and other regulatory enactments.

As the project scope was territories and communities that are placed in coastal areas of the Baltic Sea, there were several specific conclusions made – much bigger attention in communities is focused on environmental development and protection questions, as well seasonality of territory use is in the centre of attention.

Within the framework of the project, its participants (project implementers and local communities) gained new knowledge and experience on how to cooperate in the implementation of common community interests and ensure wider engagement of community members. The project participants got acquainted with the importance of GIS and green infrastructure in the local community, with the diversity of nature in the territory, the possibilities of sustainable village and neighbourhood planning and development, and the involvement of children in the cognition process. Communities of all countries involved in the project (Latvia, Estonia, Finland, Sweden) emphasize the importance of the natural environment and biodiversity in improving their quality of life.

Funding: This research was funded by the INTERREG Central Baltic programme project “Coast4us” within the P2 project priority – Sustainable use of the common resources, project number 627.

Conflicts of Interest: The authors declare no conflicts of interest.

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Kaļinka, M., Geipele, S., **Pudzis, E.**, Lazdiņš, A., Krutova, U., Holms, J. Indicators for the Smart Development of Villages and Neighbourhoods in Baltic Sea Coastal Areas. *Sustainability*, 2020, Vol. 12, No. 13, Article number 5293. ISSN 2071-1050. Available from: doi:10.3390/su12135293

Article

Indicators for the Smart Development of Villages and Neighbourhoods in Baltic Sea Coastal Areas

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Received: 16 April 2020; Accepted: 23 June 2020; Published: 30 June 2020



Abstract: A formal village/neighbourhood planning process is typically focused on three planning levels (national, regional and local) and is usually linked with administrative units of the territory (state, region or municipality). The local planning level (village or neighbourhood) “pocket plan” is a development challenge for spatial planners. The small coastal village Tuja in Latvia was taken as a pilot territory for “pocket planning” due to the unique location; biodiversity and ecosystems; significant natural, cultural, economic and social values; specific interests; and the needs of the involved local society. All these factors create a dynamic flow of data and information. Geographic information systems (GIS) are widely used as planning support systems. GISs for pocket plans must accommodate the special needs of communities in villages and neighbourhoods. Ensuring the availability of information in dynamic real time is an opportunity to build both community integration in specific environments and to understand the future plans of the territory. Access to a WEB-GIS (internet GIS) provides possibilities for every person with a mobile phone to use and update information. Static and statistical information is generally used for spatial planning. For pocket plans, the data and information flow has to be dynamic and has to interact with non-professional users. The special wishes and needs of every member of a community must be accommodated by a pocket plan for the well-being of the people and the sustainability of the surrounding territory. Small territory planning involves a very narrow circle of individuals or communities that identify spatial development needs for the future, which includes the socio-economic, cultural, historical, environmental and climate change scenarios. In order to assess the development opportunities and needs of such areas, the detection, accumulation and monitoring of reliable data is necessary. Methodically derived data (facts) provide objectivity and transparency. Currently, as information between the present and the past is able to circulate very fast, analysis of the current situation to forecast the future and show different constructed realities (scenarios) using a GIS is necessary. Therefore, to explore and determine a local needs-based and smart spatial planning approach, we must identify indicators that can be used for the short-term and long-term analysis of specific territories in coastal areas.

Keywords: territory planning; village development; community development; coastal areas; indicators of village/neighbourhood planning; using GIS; GIS layers

1. Introduction

1.1. General Information about this Research

The objective of the present research was to explore the local territory planning at the Baltic Sea Region in the context of using a geographic information system (GIS) as well as to highlight the

topicality for the smart and sustainable development of a local needs-based planning approach in coastal areas. The authors emphasize that the local territory described in this research represents a demarcated territory, such as a village or a neighbourhood of a coastal city or town, and includes the community that lives in this territory. The object of the research are villages and neighbourhoods in the Baltic Sea coastal areas, which are considered as territorial communities. MacQueen and other scientists found five core elements of territorial community: (1) Locus, a sense of place, referred to a geographic entity ranging from a neighbourhood to a city, or a particular milieu around which people gather (such as a church or recreation centre). (2) Sharing, common interests and perspectives, referring to common interests and values that can cross geographic boundaries. (3) Joint action, a sense of coherence and identity, including informal common activities, such as sharing tasks and helping neighbours, but these were not necessarily intentionally designed to create community cohesion. (4) Social ties, which involved relationships that created an ongoing sense of cohesion. (5) Diversity, referring not primarily to ethnic groupings, but to the social complexity within communities in which a multiplicity of communities co-exist. [1] Community status derives from the ability to self-organize for concrete purposes in coastal areas.

The present research prioritizes the data that should be collected and monitored to ensure trustworthy, long-term, and smart developments for specific coastal area territories. The in-depth investigation of local needs-based planning approaches will be provided in further research of the indicator analysis tool for new, informed, and objective decisions and vivid solutions in village and neighbourhood territory planning.

To approach the objective of the present research, we developed two indicator groups influencing the smart development of coastal villages or neighbourhoods.

1.2. Village or Neighbourhood

Village as a term is very widespread in the description of settlements. A small area may not always be considered as a village but may also be considered as a suburban area or territorial community. As cities and towns evolve, suburban areas are formed and the territories of cities/towns are increasingly divided into informal neighbourhood areas; therefore, diverse types of spatial planning units are created. Outside the urban and sub-urban areas, villages are dispersed—that is, at a great distance from each other or linearly behind each other, for example, coastal villages. Villages as a populated area are of a very dynamic size—they can be transformed into a city/town or may cease to exist as the population increases or decreases [2].

The status of village shall be granted and revoked by the municipality council, based on the local government territorial planning, in which the village border is defined and the need for developing a village is justified [2,3]. Communities and neighbourhoods are informal settlements and are based on the feelings and links of the inhabitants and the physical borders. In the present research, only villages and neighbourhoods with communities were studied.

Community life in local territories depends on the communication and links between the local inhabitants. Typically, a territorial community is a group of people who have similar interests and goals that are territorially limited. Communities that are living in a defined territory must find smart and sustainable ways to develop their neighbourhood. Social, cultural, and economic interest groups are one of the intersections for an active, smart, and sustainable community in a territory.

1.3. Specific Features of Coastal Areas

Coastal areas around the Baltic Sea have traditional fishing and cultural communities, such as the Viking culture, and different small ethnographical groups, like the Suite, Kurland, and Gauja cultures in the Baltic region. An integrated approach is needed to provide a strategic, integrated, and forward-looking framework to help achieve both sustainable development and nature conservation [4]. Territories in the coastal areas that are rich with natural, cultural, economic, and social values usually have a diverse range of stakeholders with specific interests and needs. These include local inhabitants

who live in the territory all year around, seasonal migrants, local municipalities, and representatives of local businesses based on the available sea resources.

Local community life in the coastal areas is strongly dependent on the seasonal migration of the inhabitants, tourism, the existing biodiversity and ecosystem, climate changes, recreation, work opportunities, and natural sea and water resources. The existing biodiversity, ecosystem and climate changes are crucial factors that will affect the future. We highlight the importance and balance among nature, humans and economic growth. Only such a balanced approach can provide a sustainable and smart society in the coastal areas, and the support of technology, including GISs, can help achieve this.

1.4. Theoretical Aspects of Local Territories Planning

When investigating coastal territories as rural territories, it is important to consider the rural development policies in the European Union and Baltic Sea region countries. Rural development policies have been based on different theoretical models. A neo-endogenous model is currently in use. This model envisages a greater role and involvement of the local communities in the planning and development processes, while respecting the regional needs and conditions [1–10]. The problems of rural communities in the context of rural development have been directly or indirectly addressed in many studies that characterized the general situation in rural areas of the Baltic Sea region and analysed the public participation in decision-making [5–7]. Europe is experiencing a paradigm shift from the countryside as a place solely linked to agricultural production to a space that offers other services, experiences and goods not only for the rural population but also for citizens and tourists [8]. Increasingly, researchers are emphasizing the use of people-centred as well as area-based approaches to rural and regional development, respecting the local specifics and conditions [9].

Various indicators have long been used in planning, but this does not preclude the development and diversification of the methodology for calculating indicators. An indicator should reflect the phenomenon in the process by tracking its evolution over a sufficiently long period, which also allows the trend to be assessed [10,11]. There are numerous definitions of indicators. Broadly speaking, an indicator can be a sign, symptom, signal, tip, clue, grade, rank, object, organism, or warning of some sort, including many things in everyday life. In other words, an indicator is simply “an operational representation of an attribute (quality, characteristic or property) of a system” [12]. Often, four basic dimensions are defined: social; environmental; economic; and institutional. It should be considered that the indicator can carry a certain social burden, promoting public participation in the decision-making process [13].

To ensure sustainable development, a simplified Banfields’ [14] rational model can be used in an infinite loop. The loop steps include: (1) data collection, (2) analysis, (3) forecasting the future (planning), establishing goals (planning) and the design of alternatives (planning), (4) assessment, indicator screening and comparing with goals and (5) reactions to the land development trends. If necessary, alternative development plans may be used as the input for step (1) [15]. Reactions to the land development trends can be implemented through ‘Stakeholder Dialog’ [16].

To more precisely look at the European Union experience in coastal area planning, the authors of this research analysed the Mediterranean Multidimensional Fuzzy Index, which was created by scientists in other parts of the European Union. This index is the basis for methodological research on multidimensional indices, particularly in the areas of sustainability, quality of life and poverty. Fuzzy set theory was shown to be a powerful tool to describe the multidimensionality and complexity of social phenomena, replacing the classical crisp approach, which generally tends to overestimate or underestimate social dynamics. Indicators are used to assess the potential of a site.

A research study by ESPON [17] found that the three key issues for territorial development were: (1) the need to better understand patterns of differentiation between different kinds of rural areas, (2) the nature of the different opportunities for development that each of them faces and (3) the way in which such opportunities depend upon and may be strengthened by interactions between rural and urban areas. For the comparison of experiences, the authors of this research studied experiences

in local territories by the coast of the Baltic Sea, and indicator groups developed by University of Latvia researchers were used. The sustainable coastal development governance indicator system was developed for the Saulkrasti municipality and accepted by the Saulkrasti local authority as a part of supervision for their municipal long-term strategy and mid-term programs. The system contains 65 indicators, including 19 environmental indicators, divided in seven thematic groups; 20 economic indicators, divided in six thematic groups; 15 social indicators, divided in five thematic groups; 8 governance indicators, divided in three thematic groups; and 3 integral indicators.

The majority of the indicators are integrated at least for two dimensions of sustainability [10,18]. In order to understand the trends, continuous data collection and calculations of the indicators should be conducted. A systemic monitoring must cover multiple scales of analysis, be able to link changes in the economy to impacts on the environment and provide sufficient detail to answer policy-relevant questions regarding specific aspects of the bioeconomy in an overarching framework. This has two implications: (1) modelling is a key aspect of a systemic bioeconomy monitoring framework, accompanied by further approaches, such as economy-wide resource accounting and life-cycle analysis and (2) sustainability indicators and targets are essential to evaluate whether the bioeconomy transition is contributing to sustainable development [19,20]. A literature review is not only an end in itself but also represents the need to create an analytical tool to achieve the best results.

2. The case study, materials and methods

2.1. Case study

The study area is Tuja, which is a coastal village in Latvia. This village is located on the coast of the Gulf of Riga (see Figure 1), 33 km from the government centre Salacgrīva district and 75 km from the capital city of Latvia, Riga. On average, 276 people live in Tuja. In the summer, tourists visit and stay in camping sites. In the territory of Tuja, the territory of detached houses occupies 44%, recreation area occupies 11%, garden plots occupy 2% and mixed business area occupies 5% (in approximate distribution). A library is available in Tuja village. In Tuja, there are partly centralized sewer and water supply networks. Tuja is the most popular seaside resort in Vidzeme (the northwest region of Latvia). There are also old fishing traditions. Public services are available to the public. Therefore, the experts chose the Tuja local community as the pilot area.



Figure 1. Tuja village location (map developed by the authors).

2.2. Tool for Data Acquisition and Analysis

In this research, the systematization of information is one of the prerequisites, as the choice of the key performance indicators depends, to a large extent, on the ability to identify specific sources and process the information flow. This ensures that the information can be used to draw conclusions and decisions. We identify critical elements in the process of selecting key performance indicators: (1) the choice of indicators, (2) the intelligibility and compliance of indicators and (3) the feasibility and credibility of the indicator check process [12].

The GIS plays an important role in the planning process. A customized GIS can be used as a local needs-based planning tool with positive impacts on the economic development, smart growth, quality of life, biodiversity, and ecosystems.

Powerful indicator assessment tools for sustainable land planning and online decision making built using GIS technologies and new complex approaches based on spatial data infrastructure (SDI) should become available soon [15].

This research highlights how to collect and analyse data for demarked territories and their communities. This is performed in line with the territory development from the perspectives of social–economical relationships and the use of local resources, and demonstrates the use of a GIS. A GIS can be used as a tool to collect, analyse and visualize the geospatial and analytical data to support a transparent and inclusive planning process in a local territory. The main possibilities to use a GIS for planning support include data visualization without geographic coordinates, traditional 2D maps, 3D maps, alternative scenarios and the analysis of multi-attribute tables. The results of this computing can be shown as WEB-GIS layers, thematic maps, dashboards and cartographical maps. WEB-GIS layers are commonly known and users without specific knowledge can combine and analyse layers and obtain useful information for decision making. Dashboards provide the possibility to combine analytical data from analytical databases and display this information on the web, linked with feature layers. Figure 2 shows a dashboard example for the collection of analytical information from government databases and statistical databases regarding the age of village inhabitants. This principle can also be used for dynamical data collection and analysis.



Figure 2. Tuja village dashboard (developed by the authors).

Thematic maps show spatial information created from analytical data and geospatial data. The GIS analysis function allows the combination of feature layers with analytical data. The results of this data combination are new feature layers with new attribute information. Figure 3 shows the building of a thematic map in the WEB-GIS combining the analytical and geospatial information from state and local governments and showing the heights of the houses.

Cartographical maps (base maps) collect different feature layers and can be shown as separate maps with combinations of feature layers by type and visualized using colours and symbology. The base map can be published on a website or printed out and used as a “normal” map. Figure 4 shows a village base map.

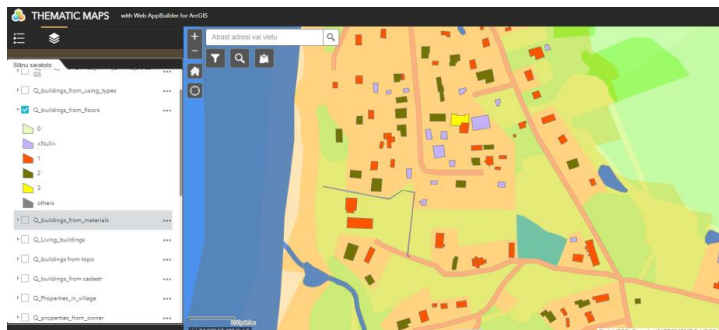


Figure 3. Village thematic map (developed by the authors).

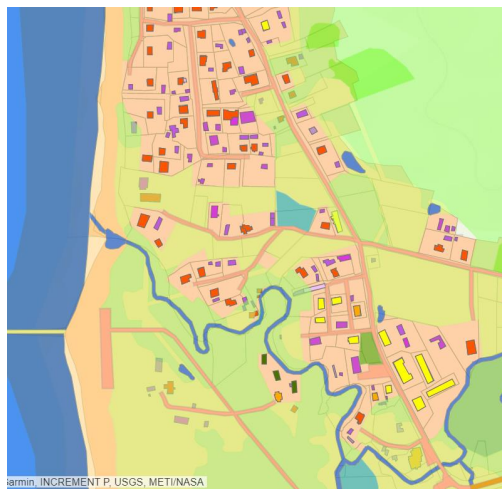


Figure 4. Village base map (developed by the authors).

A literature review, observational data collection, discourse analysis, induction, deduction, synthesis and logical access methods were used in this study. For the identification of the indicators influencing the village and neighbourhood planning in the coastal areas, we used the expert interview method. The selection of experts was based on groups with a direct impact on community life: municipality planning specialists, representatives of the village community, scientists and representatives of the ministry responsible for regional policy.

Social communication methods were used to identify the findings and the need to use them, including seminars, individual discussions and discussions on the meaning and necessity of special tools.

We identified the factors of the systematic strategic process diagram using the mind mapping technique, to help in organizing categories and ideas. Mind maps are used around a central problem to express ideas, created through content analysis, into a visual diagram [21]. They provide imagery and insights by capturing all concepts related to a concern and focusing on the relationships between concepts [22,23]. Conceptual maps stimulate the creation of ideas, rapid results, visual graphical representations and the relationships of the generated ideas [21].

Computer assisted overlay techniques, especially the spatial overlay techniques of geographic information systems (GISs) [24], are very effective for processes involving vector overlap due to their

advantages in terms of time, cost and labour consumption. A GIS was used in this study to overlap various factor maps and to obtain suitable final maps faster and more efficiently.

3. Results and Discussion

3.1. Discussion: Determining Local Territory Indicators and Using a GIS

One of the biggest challenges for data model creation is in choosing the appropriate indicators for analysing local territories. There are two principle ways to solve this “indicators” issue. One method to analyse an area is to use different types of indicators that describe the area in terms of the function, structure and location [25]. Using these three large groups would require extensive analysis, including historical, financial, social, ecological and climate data [26]. By covering the indicators of the territory, it is possible for the local community, in cooperation with the municipality, to develop a long-term strategy for the development of the village or neighbourhood territory. One of the important indicators is sociability. The World Health Organization, along with the Office of Disease Prevention and Health Promotion’s Healthy People 2020 initiative, identified social support and good social relations as key determinants of health and well-being. The Project for Public spaces showed how to work with different places [27,28]. To deal with this challenge, the most important indicators group for the local community are sociability; uses and activities; comfort and image; and access and linkages, which form the subgroups developed by the authors (see Figure 5).

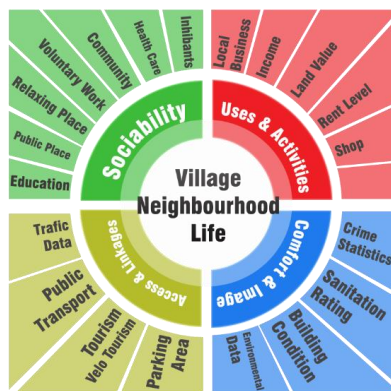


Figure 5. Indicator groups that influence village or neighbourhood planning (developed by the authors).

Another method to analyse local territories is to pay special attention to analysing the historical development of the local territory, to collect its traditions and find a sustainable way for the future to integrate the traditions and culture with developing the territory. This characteristic of local territory may require a unique approach and a focus on different indicators that play roles for the image and attractiveness of the local territory [29]. Regarding the conducted expert interviews, we developed six indicator groups (Table 1):

- economic factors;
- social factors;
- environmental;
- cultural-historical;
- government basket service;
- specific sea resources (in the water and inland).

Table 1. Indicators influencing village or neighbourhood planning (developed by the authors).

Indicators of the Local Territory	
I. Economic factors in the local territory	<ul style="list-style-type: none"> - employment - wages and salaries - real estate in village/neighbourhood (SA—particularly the seasonality of real estate usage) - migration (SA—particularly seasonal migration) - entrepreneurship in local territory and in municipality (region) (SE—in the fields that are directly connected with sea resources) - spending of municipalities on social and other support or discounts for taxes in the village/neighbourhood (if applicable; for land or real estate)
II. Social factors in local territory	<ul style="list-style-type: none"> - structure of inhabitants - nationality - size of the household - level of education - treatment of foreigners in the local territories
III. Environmental	<ul style="list-style-type: none"> - housing information - quality and volume of resources delivered and produced in the local territory - environmental information (SE—protected areas, protection and sustainable usage of sea resources) - property structure - ecological structure (SE—sea resources and the influence of climate changes on these resources)
IV. Cultural	<ul style="list-style-type: none"> - cultural activities. - free time for local inhabitants (cafes, walks, forest, shops, short migration, homes, and sport) - number of tourists per year, spent financial resources - historical links with the territory, traditions in the local community (coffee, sauna, fish smoking, berry picking, etc.) (SE—fishing traditions, recreation traditions) - population activity and level of cooperation with the municipality (in the village, village elder, Facebook group, WhatsApp group, etc.)
V. Service basket	<ul style="list-style-type: none"> - taxi - public transport - regional and government centres - regulations in place - health services - shop services

One of groups “specific sea resources (in the water and inland)” is defined as a horizontal factor group that is part of the sub-factors and shown in Table 1 marked with SA.

Economic factors impact the design of the economic development of the village or neighbourhood, and this requires information about the employment, wages, salaries, real estate in the local territory, migration, and entrepreneurship in the local territory (village or neighbourhood) and in the municipality (region). These economic factors will provide the main information regarding the planning of the territory development and analysis of the economic health in the local territory and community. By using this information, the community and local government can analyse the economic activities inside

the local territory and the economical manner of the local inhabitants. Economic factors are known to be in synergy with social factors, including life quality and satisfaction in the family and in the society (community), and they reflect the environment of the local territory as well.

Social factors present the interrelatedness of the social roles, behaviours and actions of the local community, providing detailed information regarding the social structures in the local territory to analyse the age, nationality and education. This information identifies the analytical categories and relationships between them, i.e., the needs of the local community from the age and ethnographical view.

Environmental factors play important roles in the local territory through infrastructure development (public, municipal and private) by indicating the structure and housing information. The environmental factors are closely linked to the social factors. The factors of the environmental give important information regarding the minimum needs for stays in a village or neighbourhood including:

- the drinking water and sewers;
- the roads and their quality;
- the energy saving possibilities; and
- the ecological situation.

Cultural factors include the traditions, attitudes, beliefs, values and self-definitions of the local community, which are important in territory planning and can show information regarding the free time and leisure activities in the territory and nearby territories. To collect this information, there are no optimal parameters regarding how far from the village or neighbourhood the free time activities should be located, but this parameter must be an attribute.

Government service basket factors include information on what services can be obtained directly from the government in the developing territory and how far it is to obtain services for health, shopping and local and regional centres. These factors also include restrictions on territory development and protection zones.

Specific sea resources (in the water and inland) must be analysed to collect and monitor information that is based on the smart specialization of coastal areas. It is important to analyse the resources that are directly connected to the sea in the water and those inland. This will not be a separate indicator (not included in the Table 1); however, certain indicators must be specifically analysed regarding the differences of coastal local territories (marked with SA in the lower table).

There is an issue regarding the interdisciplinary harmonized indicator classifications [30]. Every stakeholder attempts to use their own indicators, although there are many developed Ecosystem Services (ES) indicator models. In future research, we will attempt to harmonize the local level indicators with ES indicators.

3.2. Methods for Collecting the Values for Indicators and Its Data Sources

For analysing local territories, methods that produce accurate and precise data should be chosen. These data must cover the largest part of the territory and most of the inhabitants. Triangulation involves the use of different methods and sources to check the integrity of, or extend, the inferences drawn from the data. Triangulation has been widely adopted and developed as a concept by qualitative researchers as a means of investigating the ‘convergence’ of both data and the conclusions derived from them [31]. This technique is often cited as one of the central methods of ‘validating’ qualitative research evidence.

The methods for collecting of the data:

- mapping of the geospatial data—geodetical surveying on the field, use the geospatial databases to collect the environmental data;
- survey—use mutual and written methods, use social forms, also possibly use the GIS platform;
- interview—collect the cultural information and needs for inhabitants;

- observations—collect information on the habits and behaviours; and
- analyse documents—collect information on the services and regulations of the government, the decisions of the government and submissions.

Data sources for the information vary from maps to databases (see Figure 6):

- geospatial databases (textual and graphical);
- statistical databases;
- archives; and
- on the field collection.

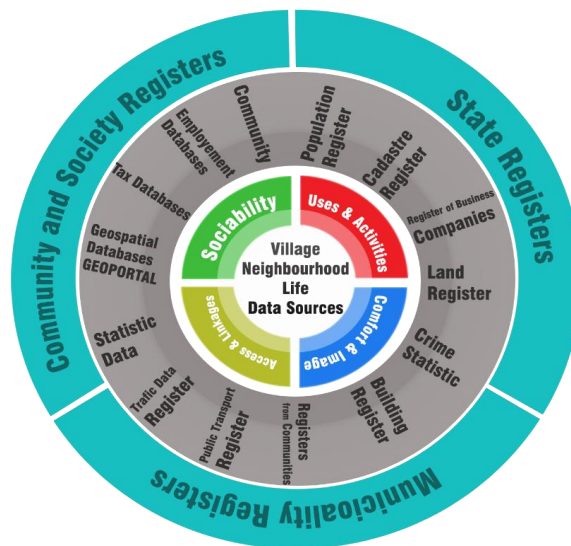


Figure 6. Data sources for indicators (developed by the authors).

In this respect, in the village or neighbourhood planning, the indicators mainly focus on the local needs and people's lives by using the hard data and integrating it in the GIS tools. In village planning, a GIS is the tool to collect, analyse and visualize the results. Spatial analysis results from the GIS give the tasks for the future to show what the village needs and what is possible to do. Combining the different geospatial and analytical layers is possible (see Figure 6). For example, for analysis of the population, to show the needs and analyse the possibilities in the village or surrounding area is possible. The GIS tool can help organize the life in villages.

3.3. Methods for Analyzing and Visualizing Indicators

There is a possibility to use many of the methods to analyse the village or neighbourhood life indicators. There are two primary important categories: statistical and/or logical methods. For visualizing, it is possible to use combinations of the analytical data and cartographical maps, or to use the GIS and statistical and/or logical methods for describing, illustrating, reducing, summarizing and evaluating the data [32,33]. Based on the data, these methods allow us to draw inductive conclusions and separate the signal (the phenomenon of interest) from the noise (statistical fluctuations or subjective bias) in the data. A GIS gives a connection with the place and possibilities to visualize the results with the geographical features to provide interactions with different data layers.

Considering the discussion part of this present research, we designed the information system architecture of the indicator analysing tool (Figure 7).



Figure 7. The information system architecture of the indicator analysing tool (developed by the authors).

According to Figure 7, the results of the indicator analysis tool must show the main possibilities for communications, needs and possibilities to develop the village or neighbourhood territory. The tool will allow for understanding and analysis of the economic, environmental, social, service and cultural factors, as well as specific sea resources (in the water and inland), including the scenarios and forecast approach. The results can also indicate threats to sociality and economical possibilities, as well as possibilities for using the strengths of the local community. In future research regarding the village or neighbourhood indicator analysis tool, more detailed characteristics of indicators and GIS layers will be developed. The results must be dynamical and open to changes in adapting to circumstances.

4. Conclusions

The territory-developed methods for the evaluation of economic and social processes, as well as the methods of analysis for territory development data are widely studied in the scientific literature. The obtained results (indicators) are used in forecasting, planning and in defining strategic directions of development at various territorial levels. Territory planning is usually used in larger planning units—municipalities, regions or states. The planning of smart and sustainable villages and neighbourhoods in Baltic Sea coastal areas can be considered a sufficiently new concept, which needs to be further detailed with new approaches and examples.

We explored local territory planning for the villages and neighbourhoods in Baltic Sea coastal areas in the context of using a GIS, and we highlighted its topicality for the development of local needs-based planning approaches. To approach the objective, we developed three indicator groups (statistical data, geospatial information and dynamic information) that influence village or neighbourhood planning. We demonstrated the primary idea of using the hard data and a GIS by designing the information system architecture of the indicator analysis tool.

Indicators are a tool used to help to analyse the present and predict the future development of villages and neighbourhoods in Baltic Sea coastal areas based on credible evidence. A GIS is one of the best ways to present and process statistical and geospatial information using spatial analysis methods, e.g., geoprocessing. The indicators provide a potential contribution to the social, economic and sustainable development of a local territory and the growth in quality improvement (potential future layers). This creates better communities for future generations and establishes viable communities, local planning services and urban and regional planning. In the development of brownfields and the land development plans can be adjusted to reach most of the expected results from inhabitants through stakeholder dialog and cooperation (to develop a cohesive community).

The effective application of indicators is possible in cooperation with village representatives and municipal specialists, ensuring the flow of information to the GIS database. A GIS can function fully when ensuring a regular flow of information. Regular discussion between the community and the municipality is a method to identify new indicators. The existing biodiversity, ecosystem, climate changes and specific sea resources (in the water and inland) are crucial factors that will affect the future local community life of the coastal areas. It is important to highlight these and the balance among nature, humans and economic growth. The local needs-based planning approach for smart and sustainable development in the villages and neighbourhoods can provide a more inclusive society in the coastal areas supported using a GIS.

Author Contributions: Conceptualization, M.K., S.G. and E.P.; methodology, M.K.; software, M.K.; validation, A.L., E.P. and S.G.; formal analysis, J.H. and U.K.; investigation, M.K.; resources, M.K.; data curation, M.K.; writing—original draft preparation, M.K.; writing—review and editing, S.G. and E.P.; visualization, M.K. and A.L.; supervision, S.G. and E.P.; project administration, S.G. All authors have read and agreed to the published version of the manuscript.

Funding: This research was funded by the INTERREG Central Baltic program project “Coast4us” within the P2 project priority—Sustainable use of the common resources, project number 627.

Conflicts of Interest: The authors declare no conflicts of interest.

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IDENTIFICATION OF MARITIME TECHNOLOGY DEVELOPMENT
MECHANISMS IN THE CONTEXT OF LATVIAN SMART SPECIALISATION
AND BLUE GROWTH

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Recognising the fact that economic realities change the world faster than global politics, in 2010 the European Commission approved the strategy for smart, sustainable and inclusive growth, called EUROPE 2020, in order to promote greater economic independence and achieve a more sustainable future. The strategy puts forward three mutually reinforcing priorities: (P1) Smart Growth: developing an economy based on knowledge and innovation; (P2) Sustainable Growth: Promoting a more resource efficient, greener and more competitive economy; (P3) Inclusive Growth: Promoting a high-employment economy delivering social and territorial cohesion.

In the context of EUROPE 2020, the Smart Specialisation Strategy in Latvia (RIS3) has been set up and introduced as a strategic document for the development of support mechanisms of high value-added economic growth, including the maritime technology sector.

The present study explores the mechanisms for the introduction of Blue Growth and RIS3 Strategies, which should be used to develop the maritime technology industry by assessing the efficiency of these mechanisms. Thus, the study addresses the issues of the implementation of modern technologies in the coastal municipalities and planning regions of Latvia.

Keywords: *Blue Growth, maritime technologies, Smart Specialisation*

1. INTRODUCTION

European governments have developed different development strategies in compliance with the European cohesion policy reformed by the European Commission and the overall sustainable development of the European Union (EU) in the medium and long term in order to become part of the world of technological advances,

use renewable resources efficiently, create additional added value, promote the development of interdisciplinary areas and support social innovation.

Global economy has started to show signs of recovery and yet policymakers and business leaders are concerned about the prospects for future economic growth. Governments, businesses and individuals are experiencing high levels of uncertainty as technology and geopolitical forces reshape the economic and political order that has underpinned international relations and economic policy for the past 25 years. At the same time, the perception that current economic approaches do not serve people and societies well enough is gaining ground, prompting calls for new models of human-centric economic progress [1]. Consequently, relatively new economies, such as the Latvian economy, should adapt to the common global and European trends in order to maintain their competitiveness on the international scene.

The aim of the research is to examine the available information on the implementation mechanisms of the marine technology industry intended for the use of marine and coastal resources in Latvia for the efficient implementation of RIS3 in the context of Blue Growth. To achieve the set aim, the following tasks are put forward: to study the concept of blue growth, its role in political documents and the impact on economic and environmental development, as well as identify the growth opportunities of the maritime technology industry in Latvia.

The methodology of the research: within the framework of the research, qualitative research methods have been used – the analysis and synthesis, induction and deduction, logically constructive, historical approach methods, information analysis and compilation, comparison, expert interviews and focus group method. The research is based on the information collected after a detailed analysis of documents (EU level planning documents, national planning and policy documents, regional and local planning policy documents) and information obtained in interviews and focus groups with national, regional and local experts.

The goal of the Smart Specialisation Strategy (RIS3) in Latvia is to increase the capacity for innovation as well as create an innovation system that promotes and supports technological progress in the national economy. Consequently, the choice of a national economic transformation strategy is closely related to the overall level of economic development and the competitive advantages (existing and potential) both at the national and regional levels [2].

The National/Regional Science and Innovation Strategies for Smart Specialisation (RIS3) are integrated, place-based basic transformation documents, with five distinctive elements:

1. Strategies focus on policy support for national investment priorities, challenges and knowledge-based development needs, including ICT activities;
2. Strategies are developed for strong and competitive national strengths and national excellence potential;
3. Strategies support technological and practical innovation and promote investment in the private sector;
4. Strategies provide full stakeholder involvement and encourage innovation and experimentation;
5. Strategies are evidence-based and include monitoring and evaluation systems.

In 2013, Latvia approved the Guidelines for the Development of Science, Technology and Innovation for 2014–2020 that comply with the objectives of EU-ROPA 2020 Strategy for the development of a national/regional science and innovation strategy for smart specialisation and the objectives of the National Development Plan (NAP) for science, technology and innovation development policy.

In Latvia, there is also a national industrial policy “The Guidelines for the National Industrial Policy for 2014–2020”, which envisages stimulating structural changes in the economy in favour of the production of goods and services with higher profitability, including increasing the role of industry, modernising industry and services, and diversifying the export basket.

The following areas of smart specialisation are identified in Latvia:

1. Knowledge-intensive bioeconomy;
2. Biomedicine, medical technology, biopharmacy and biotechnology;
3. Smart materials and engineering technologies;
4. Smart energy;
5. Information and communication technologies [3].

In the following sections, the authors of the study will assess EU-level policies and the strategic vision of Latvian regions (including municipalities) in coastal economic and technological development, as well as identify available funding sources for promoting economic activity.

2. THE ANALYSIS OF BLUE GROWTH IN PLANNING DOCUMENTS

Behind the new growth theory there is an idea that each country or region should look for its technological development path. It is necessary to achieve technological progress appropriate for a specific level of environment, nature and human resource knowledge, since the adaptation of technologies in other regions means the repetition of old, already used ideas. New growth theory is based on a knowledge-based economy, in which the main resource is a person who is well trained, ready to learn new knowledge, as well as expresses his own initiative and is ready to share innovative ideas [4]. Blue Growth is one of the EU policies promoting the use of the above-mentioned human resources, technologies and knowledge-efficient use in coastal areas. This policy is an integrated approach to stimulate the marine economy, which, like the Smart Specialisation concept, pays significant attention to innovation, the formation of new companies, the bottom-up approach and the development of value chains. Creating the so-called blue value networks requires:

1. Development of networking between suppliers and promoters;
2. Infrastructure sharing;
3. Promotion of blue clusters and networks.

The stimulation of the above-mentioned activities should be initiated by the private sector. The following activities are expected from the public sector:

1. Competence development and knowledge sharing;
2. Use of marine clusters to promote Smart Specialisation;
3. Promotion of cross-border cooperation and

4. Promotion of Collaborative Laboratories.

The concept of Blue Growth has been developed by the European Commission (DG Mare) with the aim to exploit Europe's oceans and coastal areas for job creation and economic growth. It is a way to innovate the development of marine activities that are often dependent on each other, which in turn relies on shared knowledge and infrastructure sharing. The introduction of the concept is an essential innovation in the context of all sectors and cannot be implemented in the context of individual sectors.

In total, six Blue Growth functions are identified:

1. Maritime transport and shipbuilding;
2. Food, nutrition, health and ecosystem services;
3. Energy and raw materials;
4. Recreation, work and living;
5. Coastal protection;
6. Maritime monitoring and surveillance [5].

In 2014, the European Commission developed the Sustainable Blue Growth Agenda for the Baltic Sea Region, which provides a strategic approach to the use of existing marine and coastal resources based on the following pillars:

1. Consistent approach to innovation to increase sustainability;
2. Knowledge and skills, the development of clusters;
3. Financial access to maritime sectors [5].

By examining political documents and the rationale behind their development, it can be concluded that the sustainable use of the economic potential of the seas and oceans is one of the key elements of the European Union's maritime policy, which recognises ocean energy as one of the five areas for the development of the marine economy that could contribute to job creation in the coastal area.

In turn, according to the long-term thematic planning of Latvia for the development of the Baltic Sea coastal public infrastructure, developed in 2016, the coastline is described as a unique, diverse, sustainable and economically active space with clean water, air, beach, less-changeable landscapes and a quality living environment [6].

At present, humankind is facing the problem of a shortage of resources and a worsening environment. Thus, there has been a rapidly growing interest in the analysis and modelling of biological systems [7].

The authors of the present research maintain that the main areas of economic activity in the Baltic Sea coast of the planning region of Riga are the following:

1. Tourism and recreation, including health resort;
2. Port activities, including the reception and maintenance of yachts, as well as the construction of ships and the related equipment;
3. Fisheries, fish processing, in particular its traditional forms;
4. Use of renewable energy resources (wind, water, waves, biomass, etc.).

Thus, it can be concluded that in Latvia and in the planning region of Riga, maritime technologies are the most capable ones in promoting the renewable energy sector.

When one thinks of renewable energy, generally wind, solar or hydro power comes to mind. But forward thinkers, especially those within the livestock industry, have made remarkable strides by developing ways to use feedlot waste. Home-grown energy, as it is sometimes called, is making some farmers energy self-sufficient by using cow manure or household waste to produce biogas to generate heat or electricity [8].

The production of renewable biological resources can bring various benefits. Those are:

1. Energy: Biogas contains mainly CH₄ (60 %–70 %), which is the same energy carrier as in natural gas. Thus, biogas and natural gas can be used for the same application. Methane can be burnt for cooking or lighting the house. It can also be used to power combustion engines, drive a mechanical motor or generate electricity [8];
2. Economy: energy savings, new product offerings, adoption of a certain market niche;
3. Carbon credit: Methane captured from anaerobic digestion of livestock manure may be qualified to receive carbon credit if it is collected and prevented from discharging into the atmosphere. According to the Second Assessment Report (1996) of the Intergovernmental Panel on Climate Change (IPCC), the Global Warming Potential of methane is equivalent to 21 times that of carbon dioxide. This means that in terms of global-warming potential, reducing one metric ton of methane gas emissions has the same impact as reducing 21 metric tons of carbon dioxide emissions [8].
4. Agriculture: In a biogas plant cow dung and other organic waste are converted to liquid slurry. The liquid slurry can be easily brought to places that need organic fertilizers. The most important benefit is that the slurry is a very effective fertilizer that can improve the growth of the crops. Nitrogen is one of the major nutrients required for plant growth [9].
5. Health: The process involves the killing of various types of bacteria, resulting in the improved hygiene environment and reduced health risks;
6. Environment: Reducing environmental pollution by chemicals.

To understand the feasibility of the implementation of the Blue Growth Policy in Latvia, the subsequent sections describe the development planning documents, which, in the course of implementation, could promote coastal economic development, as well as determine the financing possibilities for such initiatives.

3. RESEARCH ON THE ECONOMIC AREAS OF BLUE GROWTH AND LATVIA'S RIS3 IN PLANNING DOCUMENTS

In the largest region of Latvia – in the planning region of Riga – smart development is defined as flexible – knowledge-based and ready for change. The strategic goal is also defined as a knowledge-based “green” innovative economy, and two priorities are set:

1. Globally competitive industries (specialisation, knowledge, research, technology and continuity);
2. Smart development (education, cooperation, information, sustainable energy systems) [10].

In the planning region of Riga, the Blue Growth potential in RIS3 areas is based on the points of contact between the various planning documents and the aided economic areas mentioned therein. The synergy between RIS3 areas and maritime resource-related economic sector with great potential for development mentioned in the Baltic Sea planning documents is demonstrated in Fig. 1.

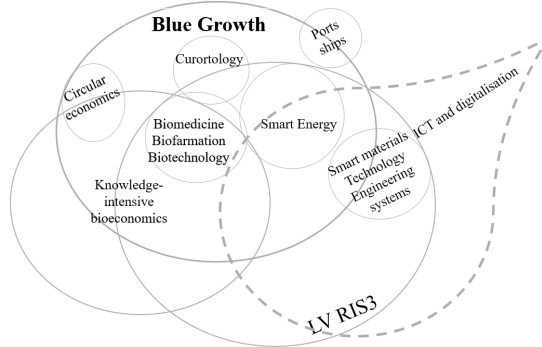


Fig. 1. Synergy between RIS3 and the Blue Growth area [made by the authors].

According to Fig. 1, it can be stated that in Riga Planning Region, in RIS3 context, the areas of Blue Growth are knowledge-intensive bioeconomy (also known as the blue bioeconomy), biomedicine, biopharmacy, resort development and active tourism, smart energy and materials, as well as new technologies.

As there is no Blue Growth Strategy in RIS3 context in Riga Planning Region, such a concept should be implemented on the basis of international, national and local planning documents, whose hierarchy and thematic link are developed and demonstrated in Fig. 2.

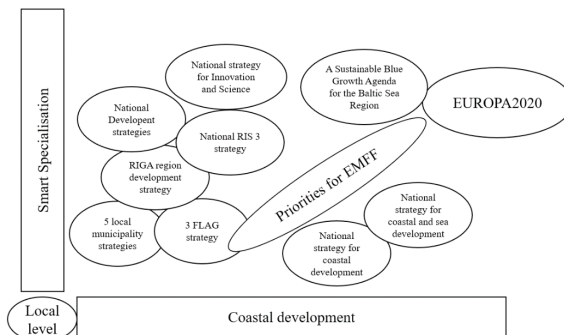


Fig. 2. Two-dimensional scheme of Smart Specialisation and Coastal Development Documents [made by the authors].

According to the two-dimensional scheme of the Smart Specialisation and the Coastal Development Documents developed by the authors (see Fig. 2), it is evident that the highest planning document is EUROPE 2020, the basic principles of which are further integrated into Latvian policy planning documents, according to which each local government integrates these directions and priorities into its municipal planning documents of local significance.

It is also important to note that in the city of Riga by smart specialisation one understands Riga's striving to become a "Smart City", which envisages transparent planning, sustainable mobility, zero-residual technology, ICT, circular economy and energy efficiency measures.

Exploring the development strategies of other coastal municipalities in Latvia, for example, in Kurzeme planning region, the following development priorities should be noted:

1. Developing a city/village as a resort, supporting micro, small and medium-sized businesses, as well as their diversification and tourism development in the area;
2. Developing seafront port services and shipping;
3. Developing communications systems;
4. Developing waste management, with particular attention being paid to waste collection and disposal;
5. Developing interest-related education in the field of natural sciences;
6. Developing an economically active environment;
7. Providing creative and professional growth opportunities in the field of production, which, inter alia, envisage lifelong learning, focusing resources on the development of the industry;
8. Creating new value, introducing innovative solutions and more efficient use of local resources;
9. Promoting the development of coastal business;
10. Promoting the use of local natural resources in business;
11. Developing a new or significantly improved service or activity and the application of new methods, processes or solutions to the production or commercialisation of products or services.

Taking into account that at present there is available financing by the EU Structural Funds, the authors have selected and summarised Smart Specialisation (RIS3) and Blue Growth implementation measures supported by the EU Structural Funds in Latvia, which may be used for the development of the Marine Technology Sector (see Table 1).

According to the information provided in Table 1, it can be concluded that efficiently working with planning documents, exploring the areas to be supported and drawing up high quality project applications, there are ample opportunities to achieve the goals set in the development of the field of marine technology, including the implementation of innovative solutions. Support is available for research and production development, as well as for the training of stakeholders, the restoration and development of objects that, in a broader context, will ensure the growth and

sustainable development of Latvian economic areas, increasing the competitiveness of the country, the commercial return of scientific achievements and scientific excellence, promoting cooperation between entrepreneurship and public sector, developing staff competence and promoting job creation, as well as ensuring an interdisciplinary approach to decision making.

Table 1

RIS3 and Blue Growth Implementation Measures Supported by the EU Structural Funds in Latvia [selected and compiled by the authors on the basis of publicly available data on project selection www.esfondi.lv]

1	Postdoctoral research support
2	Development of R&D infrastructure in Smart Specialisation areas and institutional capacity building of scientific institutions
3	Support for the development of new products and technologies within the competence centres
4	Support for the improvement of the technology transfer system and innovation vouchers for SMEs
5	Support for the introduction of new products in manufacturing
6	Support for training of employees
7	Innovation motivation programme
8	Support for ICT and non-technological training as well as training to promote investor attraction
9	Promoting the establishment and development of SMEs, in particular, in processing industry and RIS3 priority sectors
10	Promoting international competitiveness
11	Cluster programme
12	Promoting energy efficiency in public and residential buildings
13	In compliance with the integrated development programmes of the municipality, promoting energy efficiency and use of renewable energy resources in municipal buildings
14	Promoting energy efficiency and the use of local RES in district heating
15	Preserving, protecting and developing a significant cultural and natural heritage, as well as developing related services
16	Developing the natural object protection and sightseeing infrastructure, habitat restoration
17	Promoting the reuse, recycling and recovery of different types of waste

The Smart Specialisation Strategy developed by the European Commission is a strategic approach to economic development, which envisages support for research and innovation. The Smart Specialisation Strategy envisages the development of a vision, the availability of competitive advantages, the choice of strategic priorities and the choice of a policy that maximises the knowledge-based development potential of the region. EU Structural Funds for research and innovation by 2020 will be invested in Latvia in compliance with Latvia's RIS3.

4. DISCUSSION AND RESULTS

In the course of the study, the authors organised focus groups to find out the views of industry experts on coastal growth. Expert interviews were also conducted. Overall, during the study, opinions of representatives of ministries and municipali-

ties as well as industry-leading researchers were heard. The opinions of experts from 25 different institutions were summarised.

Summing up expert opinions on coastal growth in the context of Smart Specialisation, the authors made a summary of interviews.

As a result of the interviews, summarising the information provided by the leading employees of ministries, it can be concluded that coastal growth is considered in the context of implementation support of Latvia's RIS3 provided under the thematic objective "Strengthening of Scientific Research, Technological Development and Innovations" of the Operational Programme "Growth and Employment". Criteria of all measures of the thematic objective include the provision that investment complies with the areas of the Smart Specialisation Strategy. The monitoring system of the Smart Specialisation Strategy has been developed for monitoring the implementation of Latvia's RIS3.

Coastal growth is planned on the basis of planning documents, in which the Baltic Sea coast is defined as a space of national interest in the Latvian sustainable development strategy "Latvia 2030". The Baltic Sea coast is one of the regional policy target areas defined in the Regional Policy Guidelines for 2013–2019, as well as the coastal spatial development policy (refers to Riga Planning Region and Kurzeme Planning Region) is defined in the Coastal Spatial Development Policy Guidelines.

The focus is placed on the implementation of Specific Support Objectives related to the implementation of support for innovation. In this context, support is provided to Competence Centres with a total funding of 64.3 million EUR, as a result of investment eight competence centres will be established in all areas defined in RIS3 Strategy, Technology Transfer and Innovation Vouchers with a funding of 40.5 million EUR, the production of new products with funding of 60 million EUR and other programmes (motivation programmes, support for training of employees).

The aim of the ministries is to ensure that the financing is invested wisely, reasonably and has the economic impact. The funding of 200 million EUR is also intended for small businesses, which could create companies with high value added products. Representatives of the ministries also rely on the targeted research activities of the National Research Program for conducting research useful for the national economy. At the same time, the Investment and Development Agency of Latvia (LIAA) is developing a knowledge base to become a mediator between science and business. The development of people's skills is also essential; therefore, the ICT training carried out by the Latvian Information and Communication Technology Association is essential. It should not be forgotten about training that develops management skills, improves marketing knowledge etc. Thus, it is also intended to train LIAA staff that could help develop skills for attracting investors, as well as provide the necessary training for labour force.

Apart from specific training, a motivation programme is also important, such as "Idea Cup" (implemented by the Ministry of Environmental Protection and Regional Development), "Business Express", various networking seminars, mentoring, "Become an Entrepreneur in Five Days", etc.

However, the responsible national agency indicates that Horizon 2020 programme includes the following priorities: addressing societal challenges, including

sustainable agriculture, marine and maritime and inland water research, bioeconomy, secure, clean and efficient energy, smart, green and integrated transport, climate change, resource efficiency and raw materials as well as inclusive, innovative and secure societies, leadership in enabling and industrial technologies, innovation in small and medium-sized enterprises (SMEs). The opportunities for SMEs in Horizon 2020 envisage participation in all forms of research, development and innovation focused on the application and commercialisation of results. The participation of SMEs is envisioned in joint research, development and innovation projects, SME Facility, Innovations for Young Entrepreneurs – Eurostars and other events. The program has three phases: Phase 1 – Concept Development, Phase 2 – Innovation, R&D Activities, and Phase 3 – Commercialisation.

Industry-leading researchers point out that a model has been developed to help create high added value for renewable bio-resources, but it is unclear how in the national way it would be implemented in life. Institutions, actively operating in several projects related to the use of marine resources and the promotion of the national economy, have the opportunity to actively participate in the integration of new innovative approaches in Latvia, including the implementation of good practices of Blue Growth.

Evaluating the views of representatives of local governments, the information has been obtained that in Riga large potential in knowledge-intensive economy and technology is created by universities and research institutes located in Riga, but stimulation of commercialisation of discoveries is weakly influenced. In Riga, it is planned to build business clusters, industrial clusters.

In the districts that are far from the capital and the local economy is related to the sea and marine resources, the development of knowledge-intensive economy and technology has not had visible impact and significance so far; however, various conferences and discussions focus on the use of existing but under-utilised resources. For example, it has been discussed that seaweed is used in cosmetics and medicine, and even in souvenir production and related technologies.

From other marine resources, fish stocks are decreasing, the coast itself is not used due to the Northern Vidzeme Biosphere Reserve and the 300-metre restricted area. These are the reasons why tourism is not feasible, for example, the infrastructure construction process. Traditionally, in districts, it is difficult to deal with private property issues, as well as the desire of the people to live in peace and tranquility. In the district, there is a positive view of the activities planned for the commercialisation of knowledge in the period of 2014–2020, but the representatives of the districts admit that there is currently no information on this issue.

Speaking of the Blue Growth concept, it is recognised that the concept is new and is still difficult to understand. It is believed that entrepreneurs who are informed and will identify profit opportunities will do so. All the innovations in the area would be perfect for everyone, so it is also possible to apply for support for fisheries and coastal development projects from the European Maritime and Fisheries Fund, but at present only the tourism industry is developing in the traditional sense.

As the tools to be used, it is worth mentioning programmes that support business incubators, community initiative projects.

The members of the focus group believe that, at present, the essential conditions hindering the development of Smart Specialisation in the area are the lack of research and awareness. There is no understanding of what can and should be done at sea (related to nature conservation). To activate the processes, it is necessary to maintain close cooperation and exchange of information with stakeholders at all levels, which could take place, for example, through the Union of Local Governments.

5. CONCLUSIONS

Under the influence of global processes and competition, the growth and competitiveness of enterprises are increasingly dependent on the ability to apply new knowledge, organisation and working methods, as well as the capacity to engage in the commercialisation of research projects in order to develop new products, services or processes. Companies should strive to seize the opportunities and competitive advantages that innovation can make.

Priority is given to promoting the balanced development of territories, which envisages the identification and specialisation of the resources located in the territories, setting out the opportunities and areas of economic development, including leading and perspective business areas in the municipality territories.

In the implementation of the national or regional RIS3 strategy, one-sided support for economic growth should be avoided – the economic environment promoting the economic activity and the development of human resources should be created; therefore, six business sectors that are important for coastal development are identified, but in the seacoast most opportunities for maritime technology development are identified in the area of renewable energy resources and intelligent materials, different areas of bioeconomy (e.g., biopharmacy) and information and communication technologies.

The development strategies of planning regions envisage the promotion of the merger of producers and service providers in terms of the territory, including within the industry, in order to strengthen international competitiveness. This is possible by creating clusters involving new actors, ensuring the development, production, distribution of products, thereby achieving territorial excellence and quality.

The central government and municipalities are open to knowledge-based and local marine resource-based economic development, not only by actually supporting entrepreneurs, but also by research projects, providing co-financing. However, it should be admitted that in the field of marine technology such projects have not been sufficiently implemented so far.

Taking into account that, from the perspective of the country and the region, maritime technologies are only part of the country's technological development area, there is a reason to believe that currently available public funding from the EU Structural Funds could be used for the development of specific technologies. It should be emphasised that the support of the European Maritime and Fisheries Fund, in addition to direct support to fisheries, is also aimed at sustainable development of coastal areas.

To ensure the development of the Blue Growth approach in Latvia and more

successful use of marine resources, as well as the introduction of a new development model, public authorities should cooperate with research institutes involving industry researchers, local authorities and, above all, business representatives in national-level discussions.

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JŪRAS TEHNOLOĢIJU NOZARES ATTĪSTĪBAS MEHĀNISMU IDENTIFICĒŠANA LATVIJAS VIEDĀS SPECIALIZĀCIJAS UN ZILĀS IZAUGSMES KONTEKSTĀ

E. Pudzis, A. Adlers, I. Puķīte, S. Geipele, N. Zeltiņš

K o p s a v i l k u m s

Eiropas valstu valdības ir izstrādājušas dažādas attīstību stratēģijas saskaņā ar Eiropas Komisijas reformēto Eiropas kohēzijas politiku un Eiropas Savienības kopējo ilgtspējīgo attīstību vidējā un ilgtermiņā, lai iekļautos pasaules tehnoloģiskā progresa laikmetā, efektīvi izmantotu atjaunojamus resursus, radītu papildus pievienotās vērtības, veicinātu starpdisciplināro jomu attīstību un atbalstot sociālās inovācijas. Salīdzinoši jaunām ekonomikām kā Latvija ir jāpielāgojas kopējām pasaules un Eiropas tendencēm, lai saglabātu savu konkurētspēju starptautiskā arēnā.

EUROPE 2020 kontekstā viedās specializācijas stratēģija Latvijā (RIS3) tiek noteikta un ieviesta kā stratēģisks dokuments augstas pievienotās vērtības tautsaimniecības izaugsmes atbalsta mehānismu izstrādei, tai skaitā jūras tehnoloģiju nozarei.

Pētījumā tiek pētīti zilās izaugsmes un RIS3 ieviešanas mehānismi, kas būtu izmantojami jūras tehnoloģiju nozares attīstībai, novērtējot šo mehānismu efektivitāti. Tādējādi pētījumā tiek aktualizēti mūsdienīgu tehnoloģiju jomas ieviešanas jautājumi Latvijas jūras piekrastes pašvaldībās un plānošanas reģionos.

23.04.2018.

6. pielikums

Pudzis, E., Geipele, S., Geipele, I. Sea Natural Resource Potential for Blue Growth Policy Implementation in Baltic Sea Region. In: *IOP Conference Series: Earth and Environmental Science. Vol.453: 5th International Conference on Green Materials and Environmental Engineering (GMEE2019)*, China, Guangzhou, 27-29 December, 2019. Bristol: IOP Publishing, 2020, Article number 012033. ISSN 1755-1307. e-ISSN 1755-1315. Available from: doi:10.1088/1755-1315/453/1/012033

PAPER • OPEN ACCESS

Sea Natural Resource Potential for Blue Growth Policy Implementation in Baltic Sea Region

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To cite this article: E. Pudzis *et al* 2020 *IOP Conf. Ser.: Earth Environ. Sci.* **453** 012033

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Sea Natural Resource Potential for Blue Growth Policy Implementation in Baltic Sea Region

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Abstract. The goal of the research is to investigate and to identify effective Blue RIS3 implementation measures and best practices in the six participating Baltic Sea regions and to synthesize the findings in one research paper. The analysis aims at finding important aspects and conditions for future Blue Growth and RIS3 implementation in Baltic Sea. This research lead to answering question – how to sustainably and in the smart way use Baltic Sea natural resources to create smart and economically growing region within European Union.

1. Introduction

Research and innovation strategies for smart specialisation (RIS3) are a new policy instrument introduced by the European Union (EU). Countries and regions that want to invest EU Structural Funds into research & innovation (R&I) in the new programming period 2014 – 2020 are bound by their RIS3. The purpose of smart specialisation and RIS3 process is to identify areas of the economy where the potential for growth and the value added are above average and where a competitive advantage can be achieved by investing in R&D. The growth areas that are selected in the course of smart specialisation identification process are prioritised at EU, national and regional level.

Furthermore, “Blue Growth”, initiated by DG MARE, is also a relatively new concept. Whereas traditional maritime activities such as shipping and fishery have been targeted by European, national and regional policies for decades, there is still only a limited base of experience of proven policy measures when it comes to blue biotechnology/blue life science, maritime surveillance/technology or new propulsion technologies based on marine energy resources.

According to high level “Baltic Sea Conference 2013 – Blue Growth, Sustainability and Water Industries”, its been agreed, that “growth and a healthy environment are not competing objectives. On the contrary, in a holistic and longterm perspective there are important synergies between them. Notably, the development and deployment of innovative technologies that strengthen the sustainability of maritime, coastal, and offshore activities should form the basis for Blue Growth in the Baltic” [1]. According to this – in this research it is assumed that, each project or activity is horizontally evaluated in terms of its impact on marine ecology.

The goal of this research is to investigate and to identify successful methods and approaches in the Baltic Sea region, which stimulate Blue Growth, and to synthesize the findings in one transnational analysis document.

The analysis will cover the following Blue Growth sectors - Machinery & Technology, Life Science & Blue Medicine, including SPA and coastal tourism, and Energy.







Research territory - Ida-Viru County (Estonia), Riga Planning Region (Latvia), Pomorskie Region (Poland), Skåne County (Sweden), Schleswig-Holstein Region (Germany).









2. Measures and Best Practices Identified

In total, 30 measures were identified in research territories. Based on the provided information, 17 of the measures were selected for further analysis. Since many of the measures were very similar, the objective of selecting measures was to select ones that can demonstrate the broad variety of different measures. The table below shows the selected measures as grouped in four different thematic groups - Research and Development (R&D), Business Support (BS), Tourism and Infrastructure.

Table 1. Implementation measures that were identified in research territories.

Thematic axis:	Skåne County 	Pomorskie Region 	Schleswig-Holstein Region 	South-West Finland 	Riga Planning Region 	Ida-Viru County 
R&D	(M1) Promoting models, knowledge and methods for needs-driven and market-based development and innovation	(M2) Industrial research and development work carried out by the company		(M6) Developing renewable energy and energy-efficient solutions	(M9) Promote private sector investment in R&D (Support for new product and technology development within competence centres)	(M14) R&D program for smart specialization in growth areas
		(M3) Expansion through innovation – Support Grant				
BS			(M4) Cluster development / funding	(M7) Developing research, competence and innovation clusters that draw from regional strengths (research)	(M10) Facilitate availability of funding for enterprises for the development of business in various stages of development, and promote the formation of new enterprises (Regional business incubators)	(M15) Development of regional competence centres
			(M5) Competence Centre	(M8) Creating new business activities		

Thematic axis:	Skåne County 	Pomorskie Region 	Schleswig-Holstein Region 	South-West Finland 	Riga Planning Region 	Ida-Viru County 
Tourism					(M11) Promote regional development by promoting sustainable development of cultural and natural heritage of international importance and the related services	(M16) Development of tourist attractions of international interest and their supporting infrastructure
Infra-structure					(M12) Upgrade VET institutions by ensuring compliance of the learning environment to the development of industries of national economy, and improve the availability of vocational education (M13) Promote competitiveness of SMEs and development of new ideas in manufacturing industry by ensuring availability of industrial infrastructure	(M17) Activities for physical, economic and social recovery of under-utilized urban sites

2.1. Research and Development

Out of the seventeen chosen measures, the primary objective of six measures is related to Research and Development, therefore, for the purpose of further analysis, they have been grouped together. Five out of six measures are financial, while one includes both financial and methodological aspects.

Since measure objectives and planned results are similar, measures are relatively comparable, however a key dissimilarity is more than thousand-fold difference in amount of allocated funding, i.e., allocated funding ranges from 0.6 million euros to 1.9 billion euros.

While low level of awareness as has been suggested as weakness for three of the measures, availability of information through different sources has been identified as a strength for the measure with the largest funding allocation. Furthermore, sufficiency of funding as a strength has been identified as strength for two measures with total funding allocation of over 50 million euros, while insufficient funding has been identified as a weakness for one of the measures with less than 20-million-euro budget.

While number of grants/supports given are the most common planned results among the five measures, complementary private investment and number of companies cooperating with research centres has been set as additional planned results for a number of measures.

2.2. Business Support

Out of the seventeen chosen measures, the objectives of six measures are either directly related to increasing business activity through business support institutions or indirectly, through development of such institutions as competence centres, clusters and business incubators. All of the measures are of financial type. Allocated funding for the measures ranges from 0.4 million euros to 25.8 million euros. A common theme that appears is cooperation among various stakeholders. According to the analysis matrices, measures that support various business support institutions not only support the creation and development of companies and business coaching but also facilitate the communication between companies, academia and public sector including the politics.

Another common theme among the analysis matrices is long term survival of the business support institutions. These institutions are dependent on public funding, thus their long term success without identified measures might be a challenge. Finally, the difficulty to recruit people with relevant competences to the cluster organisations/competence centres was also mentioned.

2.3. Tourism

There are two measures in the selection that are directly related to the development of tourism in the coastal areas. For both measures the total funding is close to 40 million euros. While the support method for one of the measures is call for projects and strategies of municipalities, the other measure two stage open application. There are two common themes found in matrices and SWOT analyses of the two measures: one - key expected results of the development of tourism is increased demand for local businesses, two – possible synergies with other projects and measures.

2.4. Infrastructure

Three measures out of the selected sample are related to the development of infrastructure. They are all financial measures and funding for them ranges from 8.3 million euros to 105 million euros. For two of the measures the main recipients are local government while for the third – vocational educational institutions. One of the measures has an open application round, while two have calls based on development strategies.

3. Measures and Best Practices that are Most Relevant form Implementation in Baltic Sea Region

In the management and process section collaborative projects and platforms, as well as business support and development institutions and platforms (often mixed) that contribute to the overall goal, such as

(P4) Pomorskie Smart Specialisation's (PSSs) Boards (4 boards, one per PSS),

(P15) Turku Future Technologies,

(P1) Competence Academy Tourism (CAT),

(P10) Maritime Cluster Northern Germany,

(P13) GEOMAR Biotech, National Competence Centre Marine Aquaculture, Centre Industrial Biotechnology, Fraunhofer EMB;

(P7) Scale UP instrument of the “Start In Poland” program;

(P14) Bastu accelerating concept.

were chosen by the regions as the most times feasible, i.e., chosen the most times, thus they are the most suitable practices for further analysis and are essential for further research and knowledge sharing. Business innovations (such as Fish feed from wood) were often seen as a singular project, thus not

among the most popular, but they are remarkable examples and experiences that could be taken into account in further research.

Most of the examples (16 examples) are related to the implementation of various support centres, platforms, and management approaches for promoting Blue Growth. A strategic approach to the availability of funding for the implementation of various business and infrastructure projects (5 examples) also plays an important role among the good practices. For Blue Growth, according to the practices summarized by the project partners, there is also the development of coastal tourism concepts (2 examples) and port development (1 example).

A visualisation of the most commonly mentioned sectors that are affected by the analysed measures and best practices is available below:



Figure 1. Sectors that are affected by the analysed measures and best practices.

All examples of good practice offered by the project partners are characterized by an integrated approach to entrepreneurship, management and science institutions that have a positive impact on different sectors of the economy, as well as opportunities for developing existing and new business areas.

Analysing the content of positively affected business sectors, it appears that good practices have a primary positive impact on the maritime sector, which in turn has a positive impact on the shipping industry, including service providers, ports, port logistics, shipbuilding, ship repair and related industries, as well as offshore business.

4. Conclusions

Success of Blue Growth. It can be concluded that the success of the Blue Growth concept in every region is highly dependent on the efforts made by local, regional and national authorities, the effectiveness of supporting agencies and the awareness raising for existing and new entrepreneurs. All involved parties and institutions should continue the development of the created instruments with the objective of achieving the common objectives of the European Union and increasing the competitiveness of the whole BSR.

Measures. In general, analysed measures offer great opportunities for the development of both regions and enterprises. In most of the evaluated regions, however, measures are not specifically dedicated to Blue Growth.

There are clear differences in relation to the volume of finance, the scale of projects and the way of supporting planning initiatives - starting with the calls of proposals, strategies, and provision of methodology. There are also different approaches how the target groups are reached - directly (open calls) or indirectly via close project calls, infrastructure development and investments in research for scientific institutions.

The main challenges raised in the surveys were related to support tool openness towards its beneficiaries, complication of project calls, long term policy planning, sustainability of newly established companies and marketing of new/innovative products as well as of complementarity of new business to already existing industries.

Best practices. The numerous examples of best practices found in this research clearly illustrate the great diversity and broad impact of Blue Growth approaches.

Several best practices have shown that growth of coastal economies is not only based on the resources of the sea itself (such as mussels and fish), but also on the efficient use of coastal special areas (for example, tourism and health).

Economic sectors. Growth of coastal economies has an impact on a wide range of industries, including food, tourism and health sectors, as well as in higher education and science. Furthermore, numerous examples have shown the importance of cooperation among different sectors.

When implementing future projects and activities, it is essential to assess their impact on marine ecology in order to maintain sustainability and balance between sustainability factors

Acknowledgments

This research was done as a part of European Union funded project “Smart Blue Regions: Smart Specialisation and Blue Growth in the BSR”. Authors wishing to acknowledge project partner regions for information gathering and information analysis.

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Pudzis, E., Geipele, I., Geipele, S. The Basis for Sustainable Place-based Economic Development: The Role of Cultural Heritage in Latvia, Sweden and Ukraine. In: *2017 2nd SSR International Conference on Social Sciences and Information (SSR-SSI 2017). Advances in Social and Behavioral Sciences. Vol.17*, Russia, Moscow, 28-29 June, 2017. Singapore: Singapore Management & Sports Sci Inst; Acad Conf Inst; City Univ Hong Kong, 2017, pp.32-36. ISBN 978-981-11-2563-8. ISSN 2339-5133. Available from: doi:10.26602/asbs.2017.17.32

The Basis for Sustainable Place-based Economic Development: The Role of Cultural Heritage in Latvia, Sweden and Ukraine

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Keywords: Community development, Development resources, Cultural heritage, Sustainable development.

Abstract. The study provides an insight into the changes in the principle of sustainability, i.e., the transition from the approach of three pillars of sustainability (environment, economy, human) to multi-faceted definitions of sustainability, with particular emphasis on the role of cultural dimension. To estimate the importance of sustainability dimensions at different stages (levels) of economic development in the particular countries, the comparative study of the three local communities – in Latvia (Carnikava village), Sweden (Hults Bruk village) and Ukraine (Vygodna village) – is performed. The analytical and comparative method for the examination of the current situation and mutual comparison of places as well as the induction method to ensure that the results obtained contribute to drawing general conclusions has been applied. The findings of the study highlight an essential role of cultural heritage and cultural values in economic and community development regardless of the current economic situation in a country or a particular region.

1. Introduction

One of multi-dimensional sustainability models is proposed by G.M. Mudacumura in his study “Toward a General Theory of Sustainability” [2], where the scholar distinguishes six dimensions of sustainability, including economic and cultural ones. Exactly these dimensions include the interconnection among place, economy and its development based on cultural heritage and cultural values.

The study aims at conducting on-site research to explore the impact of cultural aspects on the economic development of community in certain villages of different European countries. In the study, the authors perform a comparative study of the three local communities – in Latvia (Carnikava village), Sweden (Hults Bruk village) and Ukraine (Vygodna village) – to recognise the role of cultural values and cultural heritage in the development of local community and local economy. The certain areas (villages) have been chosen to estimate the importance of sustainability dimensions at different stages (levels) of economic development in the countries under analysis on condition that the village is situated close to the important place (city) of economic development.

Based on the results of the study, the authors conclude that regardless of the current economic situation in a country or a particular region, cultural heritage and cultural values play an essential role in economic and community development. Economic development under the cultural influence is promoted both directly and indirectly – creating advantages to the growth of historical and economic sectors, as well as to the growth of related industries and services.

To achieve the goal of the study, the authors have used the analytical and comparative method for the examination of the current situation and mutual comparison of places as well as the induction method to ensure that the results obtained contribute to drawing general conclusions.

The main target group of the study is the regional development policy planning specialists at national, regional and local levels, as well as local communities and local entrepreneurs.

2. Theoretical Aspects

The commonly accepted definition of sustainability is enshrined in the report “Our Common Future” of the UN World Commission on Environment and Development [1], where sustainable development is characterised by the three interlinked dimensions: environmental, economic and social. However, G.M.Mudacumura in his study “Toward a General Theory of Sustainability” [2] defines six dimensions of sustainability:

1. Economic dimension as a dynamic structural change process that preserves cultural values and human dignity, while exploring their interconnected relationships aimed toward improving people’s economic welfare;
2. Social dimension – every individual has an opportunity to participate in the decision-making process, thus taking responsibility for the effect of decisions not only on the current generation, but also on the future ones;
3. Political dimension – politicians should create the co-operation and monitoring system, in which joint and responsible decisions on sustainable development are made within the framework of private and public relations;
4. Cultural dimension – the system, in which a community of people acknowledges their common shared values, knowledge and skills that contribute to achieving a common goal;
5. Ecological dimension – making sustainable decisions, it is necessary to take into account the need to preserve the natural and cultural heritage for future generations in order to ensure their welfare;
6. Spiritual dimension – it is assumed that a person is in the centre of activities, around whom the development takes place at the global level.

Thus, the role of culture in the context of sustainable development is indicated not only in the cultural dimension, but also within the framework of the economic dimension.

At the same time, the new economic growth theory [3] is based on the idea that each country or region should look for its own path of technological development. It is necessary to achieve technological progress appropriate for a particular environment, nature and human knowledge level, as the adaptation of technologies of other regions means the repetition of old and already used ideas but today’s buyers are only interested in innovative, efficient and less expensive products or services. However, this result can only be achieved through the efficient use of new ideas, technologies and materials, as well as human resources management. Thus, exactly at the local level it is possible to provide support for the development of entrepreneurship, by creating knowledge, human capital and sustainable resource use types.

Community development has been studied enough in Europe, for example, in Great Britain [4] and Ireland [5]. After the fall of the Soviet Union, special attention was also devoted to the post-Soviet national communities and their development principles, for example, the case studies of Georgia [6] Ukraine [7], Lithuania [8] were performed. Unfortunately, in the scientific literature there are only few studies about the Latvian community development.

Within the framework of the present study, the authors have conducted international research on the role of culture in the development of local community and local economy, including the evaluation of an opportunity of technological path formation based on site-specific cultural values.

3. Discussion and Results

Within the framework of the study, the authors have chosen the three villages in Europe – Sweden, Latvia and Ukraine – to conduct on-site research in order to identify and evaluate the local economic situation, as well as their cultural characteristics and heritage, thus obtaining the views on the impact of cultural dimension on the local economic development. In this section, the authors substantiate the

choice of specific territories and evaluate the most important information obtained in the three local communities – in Latvia (Carnikava village), Sweden (Hults Bruk village) and Ukraine (Vygodna village).

3.1. Substantiation of Research Territory Selection

Based on the theoretical background and assessment that allow identifying the role and interconnection of cultural dimension with the local community development, in order to perform the study, the authors have chosen the research territories by the following characteristics:

- a) The community under investigation should be within reach of researchers, respectively, in Europe;
- b) The communities under investigation should be located in countries of different development levels that do not have a shared cultural heritage;
- c) The communities under investigation should have a similar geographic location – they should be located in the immediate vicinity of large settlements.

Table 1 demonstrates the specific research territory – community – selection according to certain factors.

Table 1. The Community Selection Matrix (made by the authors)

Level of development by GDP [9]	The largest settlement area	Cultural characteristics [10]	The research territory chosen
Sweden – a highly developed country	Norrköping and the region	Belonging to the Scandinavian culture	Hults Bruk village
Latvia – a developing country	Riga and the region	Belonging to the Baltic region culture	Carnikava village
Ukraine – a less developed country	Dolyna and the region	Belonging to the Slavic culture	Vygodna village

For the purposes of visualisation, the selected research territories are shown on the map of Europe (see Fig. 1).

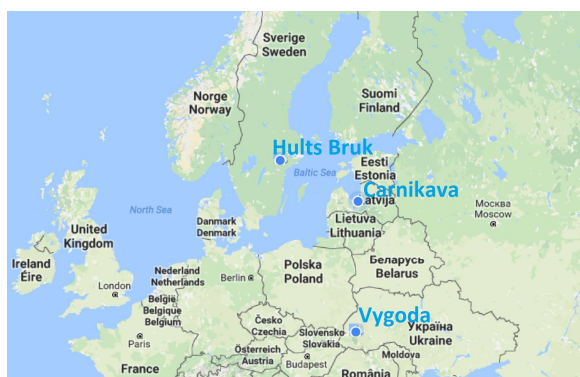


Figure 2. The selected villages on the map of Europe (source: maps.google.com)

The novelty of the research is related to a comprehensive and integrated assessment approach, which takes into account the economic development of a particular country and identifies the selected research territories by the defined features and factors, for conducting on-site research on the effective place-based economic and cultural development in order to determine, study and compare the development level of the communities under investigation, identifying the role of culture in the development of local community and local economy.

3.2. Results of On-site Research on Place-based Economic and Cultural Development

Hults Bruk Village

Hults Bruk village is located in Sweden, near the city of Norrköping. There is practically no economic activity due to small population size. At the same time, the historical economic development of the village is based on the blacksmith craft (since 1697). At present, the village's largest employer is a company with the same name as the village.

Despite changes in economic conditions, blacksmith trade has retained its importance as the main product manufactured in the village is axes, which are exported to many countries around the world. Apart from an essential factor of blacksmith used to manufacture the product, the local community considers blacksmithing as its basis for existence; therefore, the Blacksmith Craft Centre has been developed with the villagers' initiative.

This centre serves as the community's identity and socialisation centre, as well as the social support centre because the disadvantaged persons are given the opportunity to acquire this historic craft.

Villagers consider that the blacksmith craft and products developed by blacksmiths are their common identity, which in future will allow developing complementary economic areas such as tourism and related services.

Carnikava Village

Carnikava village is located in Latvia, near the city of Riga. There is little economic activity because, due to its geographical location, immigration has increased over the past decade related to the desire of capital's population to live in private dwelling areas. As a result of this migration, young people continue working in the city, but live in Carnikava village.

The basis of the historical development of the village is the fishing sector, which at present does not employ a large number of employees. The fishing process result – lamprey – has become the symbol of identity of the local community. At the national level, the village is primarily associated with the particular product.

Owing to the popularity of the product, the local community builds its recognition and the existence of the community on the basis of the historic craft and product. Moreover, the local community has achieved that the "Carnikava lamprey" has been granted the protected geographical status at the EU level.

The villagers consider that the fisherman craft is sufficiently complex and its development will not take place, but the fishermen's products are their common identity, which already now promote tourism and related services, including cultural life, for example, the annual lamprey festival.

Vygoda Village

Vygoda village is located in Ukraine, near the city of Dolyna. There is little economic activity because, due to its geographical location, business development and workplaces are provided in the city or in one of the typical sectors of the region – forestry.

Villagers consider that the cornerstone of their development is the historically preserved narrow-gauge railway, which provides daily entertainment of guests. Initially, the train was used to transport people and goods in the mountainous region, but now it serves the entertainment needs.

The local community has already understood that this historical object is an interesting tourist attraction, so the European Union funds have been used to establish the Tourist Centre with the Railway Museum, in the premises of which domestic products and accessories are sold. At the same time, the increasing number of tourists and visitors contributes to the development of new complementary services, such as catering and related services.

4. Conclusions

In all the three local communities – in Latvia (Carnikava village), Sweden (Hults Bruk village) and Ukraine (Vygodna village) – the cultural heritage has played a role in today's village community identity and economic processes.

Cultural heritage in the economic processes can manifest itself in different forms, for example, as historical products and services, as well as the transformation of historical sites to provide today's services.

Cultural heritage can pose both a direct impact on the economic development, for example, continuing to produce the particular products, and an indirect impact by promoting the production and sales of complementary goods or services, using the historical cultural factors as the identity of the place and force of attraction.

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Pudzis, E., Krutova, U., Geipele, S., Kaļinka, M., Auziņš, A. Smart and Sustainable Local Communities in Global Covid-19 Pandemic Conditions. *Landscape Architecture and Art*, 2020, Vol. 17, No. 17, pp.78-88. ISSN 2255-8632. e-ISSN 2255-8640. Available from: [doi:10.22616/j.landarchart.2020.17.09](https://doi.org/10.22616/j.landarchart.2020.17.09)

Smart and Sustainable Local Communities in Global Covid-19 Pandemic Conditions

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Abstract: The COVID-19 pandemic has brought many changes in everyone's life. Villages and rural areas are among the places where people have sought refuge in order to stay away from others and to be able to comply with government regulations during an emergency. Crisis conditions require the choice of means of communication, remote employment and self-help and self-support. Smart and strong communities or villages – this means more than only technologically and economically advanced communities – can be more successful in overcoming the crisis. This study analyses the characteristics of smart communities, the external factors influencing the functioning of these communities, as well as the specific circumstances caused by the first wave period of the Covid-19 pandemic (from March 2020 till June 2020). Collecting basic information on smart communities, external factors and special circumstances, and using the methods of analysis, comparison and drawing conclusions, the most important factors that have positively affected communities in the pandemic conditions have been taken into account within the framework of this study, clearly indicating the sustainability and development advantages of smart communities in Latvia. Nobody knows what will be “new normal” after COVID-19, but some benefits of smart thinking are noticed.

Keywords: COVID-19, smart villages, spatial planning; village development; community development; signs of the smart village; neighbourhood planning

Introduction

General Information about the Research

The aim of this study is to investigate the options for the local community in the first period of COVID-19 restrictions set by the government of Latvia and whether it is possible to use the advantages of smart villages and strong communities in this period. The local community described in this study emphasises villages in the territory of Latvia, which are located on the coast of the Gulf of Riga.

Accordingly, **the following objectives** have been set: (1) to describe the theoretical aspects of the concept of smart villages; (2) to show how COVID-19 restrictions affect the behaviour of communities (3) to find out a positive role of smart and strong communities in unpredictable obstacles when “face-to-face” communication is restricted; (4) to find answers to the open question: “Can social life be provided remotely for a long time and where the reality remains – social and cultural activities?”; and (5) to open up a discussion on the potential future and “new normal”.

For this study, the main **research questions** are: “Could it be possible to find something evolving for communities in the COVID-19 situation? Is a smart community better suited to difficult, unpredictable conditions?”

The present research has been conducted using various datasets available from statistical sources, as well as summarising theoretical information about the concept of SMART village, regulatory framework and identifying SMART village features by means of logical data analysis and comparative methods.

The study of several restrictions in Latvia regarding COVID-19 covers the period of 12 March 2020 till 10 June 2020 – the first period of an emergency situation [14].

In Latvia, several restrictions were set for three months: teleworking, if possible; distance learning in schools; distance keeping, gathering restrictions for up to five people. At the same time, different services such as public transport, education services, culture services, etc. were reduced or cancelled [14]. In addition, the population began to make extensive use of digital technologies and the opportunities they provide for mutual communication, school and university learning processes, the purchase of necessary goods and business management. Many of these processes are also included in the Smart Village concept and are applicable to the management of economic processes and the provision of primary needs. Moreover, strong communities more used interaction activities to improve self-care and mutual assistance services.

The research territorial areas cover small villages in Latvia. As example territories two coastal villages in Latvia – Tuja and Garupe are chosen, because this research is a part of research paper series that are created under INTERREG Central Baltic programme project “Coast4us”.

The study shows the strengths of smart community potential, which have positively affected a community/village ability to respond to the challenges posed by COVID-19 pandemic in Latvia.

The research uses: (1) literature review method for an overview of theoretical aspects of the smart village concept and local community identification; (2) the analysis of secondary and primary data; and (3) discourse analysis and synthesis as well as graphical methods for designing the main research results. The results are summarised in Table 1 at the end of the study.

The Idea of Smart Village Concept

Smart Villages are communities in rural areas that use innovative solutions to improve their resilience, building on local strengths and opportunities. They rely on a participatory approach to develop and implement their strategy to improve their economic, social and/or environmental conditions, in particular by mobilising solutions offered by digital technologies. Smart Villages benefit from cooperation and alliances with other communities and actors in rural and urban areas. The initiation and implementation of Smart Village strategies may build on existing initiatives and can be funded by a variety of public and private sources. Communities in rural areas can include one or several human settlements, without any restrictions regarding the administrative boundaries or the number of inhabitants. As regards eligibility conditions for support, EU Member States may use definitions of rural areas as provided for by the OECD, EUROSTAT or other definitions. A participatory approach means active participation of the local community in the drawing up and decision-making regarding the Smart Village strategy. During the implementation phase, the participatory approach will ensure that the needs for capacity building and the training of people are properly addressed. Digital technologies include, for example, information and communication technologies, the exploitation of big data or innovations related to the use of the Internet of Things (IoT). They act as a lever to enable Smart Villages to become more agile, make better use of their resources and improve the attractiveness of rural areas and the quality of life of rural residents. The use of digital technologies is not a precondition for becoming a Smart Village. Where possible, high-speed broadband will facilitate the deployment of digital solutions. Smart Village strategies respond to the challenges and needs of their territory by building on their local strengths and assets. Strategies must determine short-, medium- and long-term goals. Progress must be measurable through performance indicators that will be set in a roadmap. These roadmaps should be reviewed at regular intervals to allow for continuous improvement. Strategies may aim, for example: to improve access to services (in various fields such as health, training or transport), to enhance business opportunities and

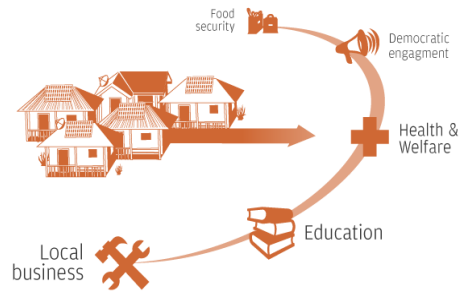


Fig. 1. The concept of Smart Village [11]

create jobs, to the development of short food supply chains and farming practices, to the development of renewable energies, to the development of a circular economy, to better exploitation of natural resources, to adapt to climate change, to preserve the environment and biodiversity, to a better valorisation of the cultural heritage for a greater tourist attractiveness etc. [16].

On 22 May 2018, EU Commissioner Phil Hogan said, “*Smart villages are all about making different policies work together to find better, smarter ways to promote holistic rural development. It is about harnessing existing and emerging technologies and social innovations to add value to the lives of our citizens. It is about giving villages the tools to address their own challenges while also making a contribution to the bigger challenges facing society as a whole*” [15].

Smart village is an advanced concept of off-grid community where every component of the basic human rights relates to smart technology. Renewable and sustainable energy service performs as a facilitator for development in the smart village concept. Figure 1 shows the smart services available in a smart village [8].

Smart villages are rural areas and communities that use their existing strengths and values, as well as develop new opportunities to create new added value. In smart villages, traditional things and new approaches are sought and improved through digital communication technologies, innovation and better application of knowledge for the benefit of citizens [7].

Smart villages are based on people, i.e., rural communities that take the initiative to find practical solutions both to solve existing problems and to make the most of new opportunities for the transformation of rural areas in the future [4].

The term “smart” implies:

- The use of digital technology where it is applicable, not because it is modern or up-to-date. Smart villages often use the added value of digital technologies, but this is only one of the tools to improve performance;

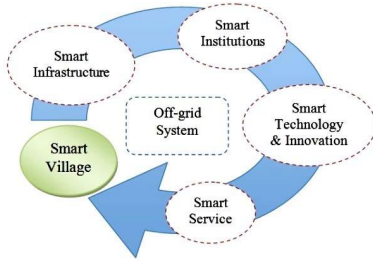


Fig. 2. The concept of Smart Village [8]

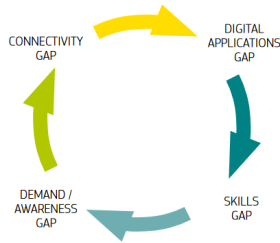


Fig. 3. Links between connectivity, digital applications, skills and demand gaps [15]

- Thinking outside the village. Some of the current Smart Village practices stop working in the village area, but there are also some that include the surrounding rural area, village groups, small towns and cooperation with large cities;
- New cooperation and the development of new forms of cooperation – between farmers and other entrepreneurs in rural areas, between municipalities, the private and public sectors, cooperation takes place from the bottom up and from the top down;
- Care for oneself. There is no single common model or solution to the Smart Village approach – the main emphasis is on local people and their ability to use local resources, apply their knowledge and take the initiative.

It is clear from these smart village cases that a community cannot rely on internal resources in a crisis without going beyond villages or community borders. There is a need for a link that ensures cooperation with neighbouring communities and municipal and state institutions (see Figure 2).

To make rural communities benefit from digital strategies and create the conditions for Smart Villages, it is necessary to use all three components of the digital divide while taking into account the specific needs of each rural area and the existing landscape of policy support such as:

- Broadband infrastructure;
- Promoting the uptake of digital services;
- Digital skills and literacy.

They need to be addressed together in digitisation strategies [15]. Figure 1 shows links

between connectivity, digital applications, skills and demand gaps.

According to Figure 3, the three aforementioned components reinforce each other, so if not addressed together, it would lead to a low level of awareness, demand and uptake of digital technologies, which in turn damage the business case for further investments.

Overview of Precautions for Distribution of COVID-19

The World Health Organisation gives simple precautions with regard to the distribution of COVID-19, that are mainly connected with washing hands, distancing, good respiratory hygiene, etc. [3].

These established guidelines require people to be careful and limit their activities to a minimum when meeting others. In view of the above, individuals lose direct contact within the framework of business and social communication. As a result, communities lose their traditional approach of direct social and economic communication between neighbours or neighbouring communities.

Latvia separately by Cabinet of Ministers Order No. 103 of 12 March 2020 imposed certain restrictions on education, assembly, international passenger transport, health care and other. There are the main points for restrictions [14]:

- State and local government institutions shall evaluate and, as far as possible, ensure the provision of face-to-face services remotely;
- To terminate the study process in person in all educational institutions, all types of the educational process in full form outside educational institutions and to provide studies remotely;
- To allow the gathering of both indoor and outdoor people at such organised events for up to 25 people, ensuring epidemiological and social distance;
- To determine that the place of performance of cultural, religious activities, entertainment, sports and other recreational places shall start not earlier than at 6.30 and end not later than 24.00;
- For persons designated by the Centre for Disease Prevention and Control as COVID-19 infectious disease contact persons – Self-isolation at the place of residence (home quarantine) and availability must be provided for 14 days in order to be able to communicate and cooperate with the family doctor and other medical personnel;
- From 17 March 2020, to stop the international carriage of passengers by air, sea, road and rail, with the exception of passenger transport by state aircraft and military transport, as well as private and business flights (with a maximum of five passengers); to resume international air, sea, bus and rail passenger transport to or from Lithuania and Estonia as of 15 May 2020.



Fig. 4. Community interaction scale [13]

These restrictions practically stopped face-to-face meetings outside one household and necessitated adaptation to work and social activity.

The Idea of Local Village Community

The status of a village shall be granted and revoked by a municipality council, based on the local government territorial planning, in which the village border is defined and the need for developing a village is justified. The status of a village may be granted to such section of a municipality territory in which concentrated building is present (or is planned), people are living permanently, and the appropriate infrastructure has been developed [13].

Taking into account that historically in Latvia, the villages have not formed as built-up areas but, among other things, are based on interpersonal ties and needs, as well as, in theory, such a territorial limitation forms a community, further in the present study the authors will examine the integrated development of villages and communities or territorial communities that have a clearly defined operational limitation [13].

When discussing the existence of a community and its strength during an emergency, it is necessary to focus on the basic needs of the community and the performance of daily affairs: social communication, business activities, the performance of basic functions, necessary needs, etc.

Towards an even deeper understanding of community development, Thomas (1991) [18] has created the community interaction scale, which is divided into two blocks and grouped into grades from 1 to 11 (see Figure 4). The scale consists of grades that are separated because they distinguish between lower, regular and obvious community interaction aspects (from 1 to 6) and higher/more complex and formal organisational aspects of community life (from 7 to 11) [13].

The present study prioritises digital technology and smart village opportunities for social and economic interaction within the community. The benefits of strong communities are analysed in the discussion section and the results are shown in Table 1.

Literature Review and Analytical Assessment

According to the Smart Communities Guidebook (1997) [9], a “smart community” is a community in which members of local government, business, education, health care institutions and the general public understand the potential of information technology, and form successful alliances to work together to use technology to transform their community in significant and positive ways.

Smart Village and Business

Smart Village is a relatively new concept within the realm of EU policy making. The emerging concept of Smart Village refers to rural areas and communities that use their existing strengths and assets as well as develop new opportunities. In Smart Village, traditional and new networks and services are enhanced by means of digital, telecommunication technologies, innovations and better use of knowledge for the benefit of inhabitants and businesses. Digital technologies and innovations may support the quality of life, higher standard of living, public services for citizens, better use of resources, less impact on the environment, and new opportunities for rural value chains in terms of products and improved processes. The concept of Smart Village does not propose a one-size-fits-all solution. It is territorially sensitive, based on the needs and potentials of the respective territory, as well as strategy-led, i.e., supported by new or existing territorial strategies. Technology is important along with investments in infrastructure,

MULTI-SERVICE HUBS	MOBILE SERVICES
Colocation into multi-service hubs provides one means by which rural service businesses can survive or even thrive. These can be planned, as is happening in rural Finland and Belgium. Equally, hubs can develop in a more organic way, as when a garage takes on the post office and then develops a food retail function.	These can provide essential services to local communities while at the same time ensure the viability of small firms by increasing their customer base. Examples include mobile dentists, vets, building maintenance and shops of various kinds.
DIGITAL DIVERSIFICATION	SHORT SUPPLY CHAINS
Architects, lawyers, consultants, and other professionals can all provide a wide range of services using digital solutions.	These have long been an adaptive strategy for small food firms to gain a competitive edge.

Fig. 5. The main strategies for business in small territories [2]

business development, human capital, capacity and community building. Good governance and citizen involvement are also key factors. Smart Village would typically pay attention to e-literacy skills, access to e-health and other basic services, innovative solutions for environmental concerns, circular economy application to agricultural waste, promotion of local products supported by technology and ICT, implementing and taking full benefit of smart specialisation agri-food projects, tourism and cultural activities, etc. The concept of Smart Village covers human settlements in rural areas, as well as the surrounding landscapes [7].

Common Agricultural Policy (CAP) includes six priorities where the last priority (No. 6) discusses social inclusion and economic development. This priority is divided into three groups: facilitating diversification, creation and development of small enterprises, as well as job creation, fostering local development in rural areas and enhancing the accessibility, use and quality of information and communication technologies (ICT) in rural areas [12].

Private sector businesses need to generate profit to survive. The key question is whether the level of demand is sufficient to justify a business proposition: will the income be sufficient to cover costs and generate enough profit to pay back loans and reward other sources of finance? For large companies operating on a national or global scale the answer often is “no”, they can do better elsewhere. For smaller, more territorially rooted enterprises, there appear to be four main strategies (see Figure 5) [2].

COVID-19-related restrictions, which called for staying at home, “drove” part of the population to the countryside. In Latvia, in addition to the apartment in the city, citizens often also own a country property or holiday house.

In order to be able to do the work, to follow the lectures and classes, almost everyone was forced to raise their IT gaps, especially in remote communication.

Within a few days after an emergency situation had been announced, theoretical strategies were implemented in life (see Figure 3):

- Digital diversification – it turned out that public employees, teachers, lecturers, architects, etc., can really work from home;
- Farmers and local restaurants learned to build websites and began delivering products to neighbours at home, strengthening and putting into practice short supply chains;
- Larger supply businesses expanded the supply areas from Riga suburb to the whole territory of Latvia; reduced delivery price; started services for small, one-family orders and supplemented the range of goods with basic necessities, such as disinfectants, creating a special combination of multi-service hub and mobile service (mobile multi-service).

Villages/Communities and IT Technologies

During the COVID-19 pandemic, many people in many countries, as well as in Latvia, lived outside the cities, managing their daily processes from villages, small towns or homesteads. Starting from 13 March 2020, many people in Latvia moved from cities to areas outside the cities or small towns and there was a need to ensure both high-quality internet connection and its availability. Figure 4 shows the migration of people from large cities to rural areas by analysing the mobile network connection. A study conducted at the University of Latvia in cooperation with Latvia Mobile Network operator shows that it is possible to provide remote connection in Latvia in practically all areas that are not related to physical production. Figure 4 shows mobile activities in the mobile network before COVID-19, i.e., the change in activity in March 2019 compared to March 2020. To analyse these two periods before and during the first wave of COVID-19 in Latvia, we see the activities change from cities to rural areas [1; 5; 10].

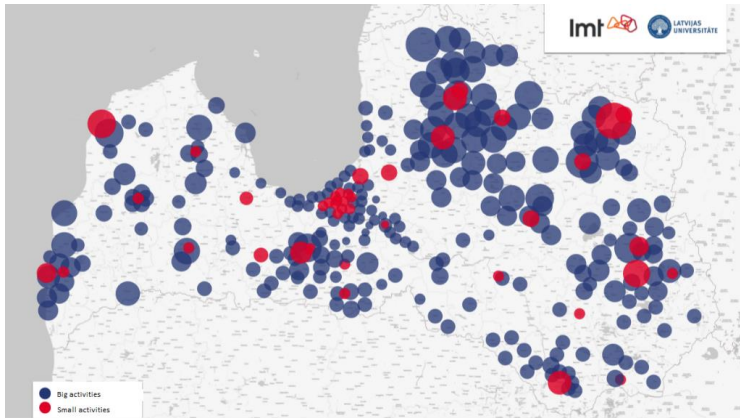


Fig. 6. Activities in the mobile network provided by Latvia Mobile Network [10]

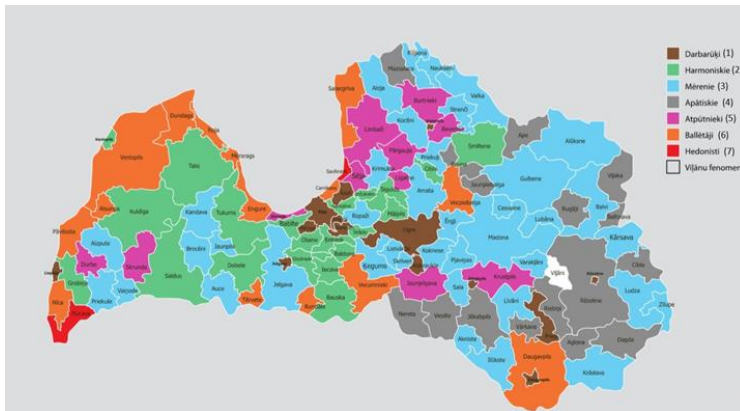


Fig. 7. Economic development index of Latvia's regions (in the Latvian language) [5]

Figure 6 shows that in the Latvian capital, Riga, and other major cities of Latvia, the mobile network activity decreased in March 2019 (before COVID-19) (red circles), but in rural areas, the mobile network activity increased in March 2020 (during COVID-19) (blue circles). Thus, it can be concluded that if there is a sufficient IT infrastructure and the work can be done remotely, then people move to the countryside, outside large cities, as well as to the villages.

Researchers of the University of Latvia analysed data of mobile network (LMT) events (incoming and outgoing calls and SMS) over the period from 25 July 2015 to 20 January 2017 (64733760 entries) and, according to mobile phone usage habits, an index map for the economic development of Latvia's regions was created (see Figure 7).

As can be seen in Figure 5, all regions of Latvia were classified into eight groups:

(1) – workaholic, denoting community members with high activity on weekdays and moderately low activity on weekends;

(2) – harmonious, denoting community members with high and moderate activity on weekdays and moderate activity on weekends;

(3) – moderate, denoting community members with moderate economic activity on weekdays and weekends;

(4) – apathetic, denoting community members with low activity on weekdays and moderate activity on weekends;

(5) – holidaymakers, denoting community members with moderately low activity on weekdays and moderately high activity on weekends;

(6) – partygoers, denoting community members with low activity on weekdays but high activity on weekends;

(7) – hedonists, denoting community members with minimal activity on weekdays and maximum activity on weekends;

(8) – Viļāni phenomenon (only one municipality has these characteristics) denoting the activity of the area as moderate on weekdays and moderately low on weekends.



Fig. 8. Changes in the economic activity index in March 2020 compared to March 2019 in Tūja village of Salacgrīva district and Garupe village of Carnikava district [10]

To better reflect the changes in the economic activity index during the first period of COVID-19 and to show the activity of villages, the authors demonstrate two Latvian village profiles as example territories in Figure 8 – Tūja village in Salacgrīva district and Garupe village in Carnikava district, where both villages correspond to the profile of partygoers according to the above classification, which means that before the COVID-19 people were active on weekends in these villages.

The information presented in Figure 6 about Tūja village in Salacgrīva district and Garupe village in Carnikava district, which according to the classification provided in Figure 5 correspond to the profile of partygoers before the COVID-19, shows that when the first state of emergency came into force people moved to rural areas, where they lived and worked, including more active former partygoer villages of Tūja and Garupe transformed from partygoers to workaholic.

Another mobile network provider Tele2 conducted a survey of the people. The population survey was conducted in cooperation with the research company BERG Research. The survey took place from 27 March to 1 April 2020, and 707 respondents participated. The consumption of data by telephones in Tele2 network increased by 50% in the first half of 2020. The average consumption of mobile data per SIM card in the network of the mobile operator Tele2 increased by 50% in the first half of 2020. According to Tele2, the average data consumption per SIM card in the company's network reached 15.2 gigabytes (GB). The company also mentions that a rapid average increase in data consumption by smartphones has been since the beginning of 2020, but an increase in data consumption has not only been affected

by the spread of coronavirus and restrictions to combat it, as the population's habits change. "Data consumption continues to grow year by year. We see this both after the average data consumption and the increase in the number of connections of unlimited tariff plans. Unlimited data plans are currently the most popular," said Valdis Vancovičs, Chairman of the Board of Tele2 [19].

Analytical Assessment of Socioeconomic Activities

Not only experimental but also official information collected by the Central Statistical Bureau shows the impact of COVID restrictions on employees' behaviour and economic activity.

The employed population, who had the opportunity, switched to remote work. Figure 9 shows proportion of remote employees by the main economic activity sectors: *manufacturing sector* (NACE section B–F (B – Mining and quarrying, C – Manufacturing, D – Electricity, gas, steam and air conditioning supply, E – Water supply, sewerage, waste management and remediation activities, F – Construction)), *trade and services sector* (NACE section G–N (G – Wholesale and retail trade; repair of motor vehicles and motorcycles, H – Transportation and storage, I – Accommodation and food service activities, J – Information and communication, K – Financial and insurance activities, L Real estate activities, M Professional, scientific and technical activities, N – Administrative and support service activities)), *other service sector* (NACE section O – U (O – Public administration and defence, compulsory social security, P – Education, Q – Human health and social work activities, R – Arts, entertainment and recreation, S – Other service activities, T – Activities of households as employers, undifferentiated goods- and services-producing activities of households for own use, U – Activities of extraterritorial organisations and bodies)) [17].

According to Figure 7, remote work in some economic activity sectors can be implemented quickly and successfully, but in others – such as in non-automatized manufacturing – not.

The data of the Central Statistical Bureau show that senior specialists worked most often (42.7%) remotely, slightly more than a third (34.2%) of managers and slightly less than a third (32.4%) of specialists. In June 2020, 63.7% of remote employees worked full-time, 18.3% worked regularly 3–5 days a week, and 7.8% worked regularly 1–2 days a week. 5.2% of employees worked remotely a few days a month, but 5.0% regularly worked part-time or a few hours.

With the end of the state of emergency (the first wave) in Latvia, the proportion of remote employees decreased. In June 2020, 15.5% (117.1 thousand) of employees aged 15–74 worked remotely, which was

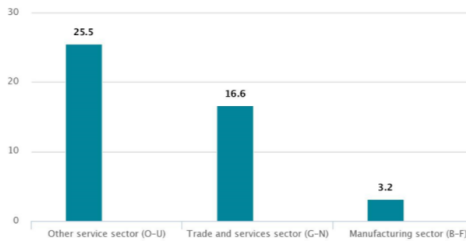


Fig. 9. Proportion of remote employees by economic activity sector in June 2020 (as per cent) [17]

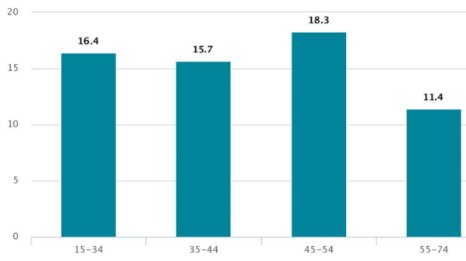


Fig. 10. The proportion of remote employees to the total number of employees of the corresponding age group in June 2020 (as per cent) [6]

2.7 percentage points (18.8 thousand) less than in May 2020, according to the results of the Labour Force Survey conducted by the Central Statistical Bureau. 70% of women and 30% of men worked remotely [6].

The highest number of remote employees was in the age group 15–34 years (31.2%), slightly less (27.0%) – in the age group 45–54 years (see Figure 10). The highest number of remotely employed men (35.7%) was in the age group 35–44 years, but women (31.7%) – in the age group 15–34 years.

As shown in Figure 8, the highest share of remote employees (18.3%) to the total number of employees in the corresponding age group in June 2020 was observed in the age group 45–54 years, but the lowest (11.4%) in the age group 55–74 years. In June 2020, 63.7% of remote employees worked full-time, 18.3% worked regularly 3–5 days a week, and 7.8% worked regularly 1–2 days a week. 5.2% of employees worked remotely a few days a month, but 5.0% – regularly part-time or a few hours [6].

The authors of the study admit that probably a relatively large share of remote employees in the age group 45–54 years is related to the fact that this group has the largest number of senior specialists employed.

Figure 11 shows that with the end of the state of emergency (the first wave) in Latvia, the confidence indicators seasonally started to go up, but very slow in all sectors.

The authors also note that the COVID-19 has certainly had an impact on employee behaviour and economic performance of companies, but it is currently difficult to predict whether it will be a “yo-yo” or a long-term effect.

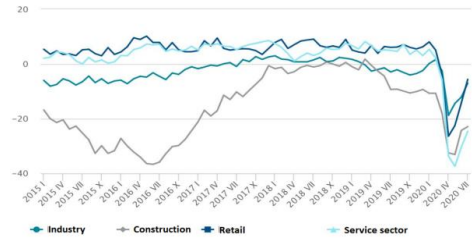


Fig. 11. Confidence indicators – seasonally adjusted data, balance % [6]

Discussion

In the discussion part, it is important to understand whether the SMART and strong community can help overcome periods of crisis.

Open questions:

Will people and services stay in the countryside or return to the city after the end of the COVID-19 restrictions (see Figure 12)?

What tools are needed for successful operation remotely and can the Smart Village concept help?

Can a Smart and strong village or a community with a higher level of development better overcome crisis situations?

Dr. Bernie Jones discusses the Smart Village concept, “Unfortunately, in the world today, there are still around 1 billion people without access to electricity. 3 billion are still cooking on dangerous and inefficient stoves. Many of them live in remote rural communities. Until such communities have access to modern energy services, little progress can be made to develop their economies and improve their lives” (see Figure 10) [11].

In Latvia, from a digital point of view, there are no significant obstacles for communities and institutions to manage and communicate in digital format. Villages need mutual cooperation with each other and also among institutions. Cooperation would ensure both the identification of resources and the planning of the provision of missing resources.

The daily life of example coastal villages is based on a tourist service or a place of rest outside the city. Smart services successfully provide resource management, business activities, cultural event promotion, and bulletin board features.

The open question is whether social life can be provided remotely for a long time and where the reality remains – social and cultural activities?

To get a “full picture” of activities of communities and villages in the time of COVID-19 pandemic, it is important to combine concepts of Smart Village and strong community, which is based on the interaction scale (see Figure 2), because digital solutions cannot be assessed without taking into account the factors of human cooperation.

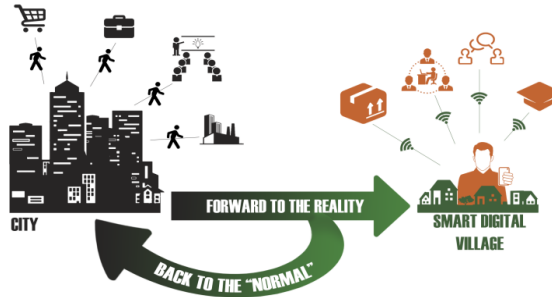


Fig. 12. Changes caused by the COVID-19 restrictions [developed by the authors]

Advantages of Smart Villages and Strong Communities in the Time of Covid-19 Pandemic [developed by the authors] TABLE 1

Covid-19 pandemic restriction field	Village or community groups (citizens, entrepreneurs, local administration) affected	Smart village concept and community interaction strengths as a reaction to restriction
Restriction of public transport or suspension of service	Citizens, especially those who use public transport to get to work and services	Teleworking opportunities, which, despite restrictions, allowed for teleworking and remuneration IT tools to ensure mutual public cooperation in private transport sharing
Restriction of education services or suspension of service	Citizens as recipients of services Entrepreneurs as parents of children Municipalities as service providers	There were many different IT and TV tools implemented to provide distance learning with the least possible impact on the quality of education Sufficient quality of the Internet and the number of computers allowed working and studying remotely within one household at the same time, which influenced business as little as possible
Restriction of culture services or suspension of service	Citizens as recipients of services Municipalities as service providers	There were many different IT and TV tools implemented to provide distance culture services, as well as creative amateur processes as far as possible
Restrictions of health care services or suspensions of service	Citizens as recipients of services Entrepreneurs as parents of children Municipalities as service providers	Various solutions based on telephone services and IT services were introduced, which allowed receiving services remotely without gathering and moving. At the same time, it should be noted that in the health sector only some services are provided as e-health services due to their specifics
Self-isolation and quarantine , a total ban on moving outside the place of residence	Citizens as individuals subject to self-isolation or quarantine Entrepreneurs as employers	Self-help opportunities, focusing on the ability to provide help and support to self-isolated or infected community members through remote (non-contact) tools and a strong cohesive community (this pandemic forced almost everyone to self-isolation or treatment at home)
Prohibitions on gathering in public places, including socialization points (e.g., cafes)	Citizens as beneficiaries Entrepreneurs as service providers	In Latvia, the tourism and service sector had the opportunity to attract more local market, which in the long run would have an impact on habits –tourism and recreation were also possible in the local region and in Latvia as a whole (safe) IT tools for meetings of interest groups
Restrictions on the provision of day-to-day services	Citizens as beneficiaries Entrepreneurs as service providers	There was an opportunity for a rapid reorientation of direct sales to digital sales with contactless supplies, both in the services and trade sectors
Recommendation to work remotely , mass infection at workplaces	Residents as employees Entrepreneurs as employers	Opportunity to work remotely by using IT tools due to limited access to public transport for employees, limited access to work due to children having to learn from home, including a reduced risk of cross-contamination among employees

To answer open questions stated before, the authors of the study have collected information on how Smart and strong community strengths have affected the community/village ability to respond to restrictions and problems caused by COVID-19 pandemic in Latvia (see Table 1).

The information analysed in the study showed that in the conditions of the COVID-19 pandemic, there was a change in the habits of society as well as a change of residence to areas outside cities, and it was acknowledged that society was largely ready to switch to remote work and distance learning. Summarising information on changing population habits, national restrictions, and the strengths of the SMART village concept, it was identified that there were significant benefits for SMART villages and communities, as the local community chose a digital development path long ago; therefore, adapting to remote work, distance learning, cultural and public services did not cause many inconveniences. At the same time, the society was able to continue mutual communication and organise self-help. A big open question for post-Covid research remains: will people who chose to move out of the city during the pandemic choose to stay in the countryside or return to the city? This can make significant adjustments to the development of local communities in both potentially positive and negative ways.

Conclusion

From the above information and the data collected, it can be concluded that digital skills, digital equipment and services of local communities, as well as community cooperation skills have played a key role in overcoming the limitations and consequences of the COVID-19 pandemic. Smart villages and communities, as well as previously strong communities, were much better prepared for the crisis because they knew and were able to switch to digital solutions in different living spaces, as well as to provide mutual self-help.

Given the fact that smart communities and strong communities are usually closely linked to their living space and have purposefully chosen to live in small villages, it is considered that providing equivalent services even in the event of a large pandemic could not be a basis for change of the place of residence or business.

Examining the limitations of the pandemic and the communities' responses to them, it was concluded that smart communities, entrepreneurs, public service providers were able to adapt to a wide range of tools – IT solutions and applications, telephone-based services, social networks, online stores, etc. This is important evidence that IT infrastructure, networking and capacity, as well as digital connectivity and interoperability have been instrumental in overcoming the COVID-19 crisis.

In final conclusion, smart communities and strong communities were much more able to adapt to the constraints of the COVID-19 pandemic and to overcome the effects of the pandemic, as digital skills and strong community self-help played a key role.

Funding: This research was funded by the INTERREG Central Baltic programme project “Coast4us” within the P2 project priority – Sustainable use of the common resources, project number 627.

Conflicts of Interest: The authors declare no conflicts of interest.

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Kopsavilkums. COVID-19 pandēmija ir izraisījusi dažādas izmaiņas ikviena cilvēka dzīvē. Pētījumā analizētas ciematos un lauku teritorijās dzīvojošo cilvēku izveidotās viedās kopienas. Tiek analizēti gan ārējie faktori, kas ietekmē šādu kopienu darbību, gan arī iekšējie apstākļi, ko izraisīja COVID-19 pandēmijas pirmā viļņa periods (no 2020. gada marta līdz 2020. gada jūnijam). Apkopojot pamatinformāciju par viedajām kopienām, ārējiem faktoriem un iekšējiem apstākļiem, kā arī izmantojot matemātiskās analīzes un salīdzināšanas metodes, pētījuma ietvaros tiek atzīmēti faktori, kas pandēmijas apstākļos ir pozitīvi ietekmējuši kopienu veidošanos, skaidri norādot viedo kopienu ilgspēju un attīstības priekšrocības Latvijā.

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Evaluation of Community Involvement in Participatory Process - Lessons Learned in the Baltic Sea Region

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DOI: 10.2478/aup-2020-0009

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2-s2.0-85102260352

Document Type: Article

Publication Stage: Final

Source: Scopus

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Document Type: Article

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2-s2.0-85083376547

Document Type: Conference Paper

Publication Stage: Final

Source: Scopus

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Document Type: Article

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(2018) *Latvian Journal of Physics and Technical Sciences*, 55 (4), pp. 57-69. Cited 3 times.

DOI: 10.2478/lpts-2018-0029

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2-s2.0-85035316681

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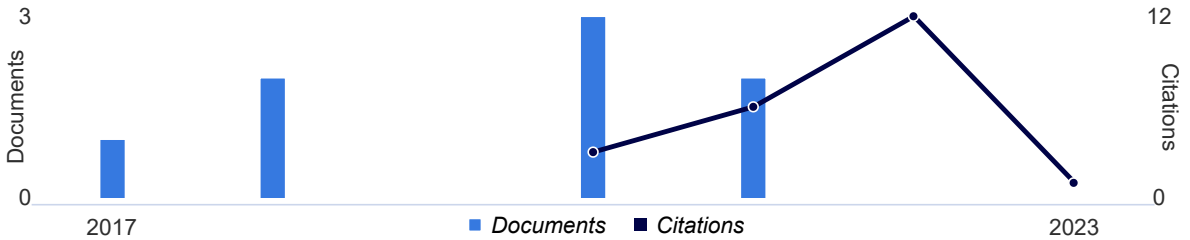
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Source: INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH **Volume:** 18 **Issue:** 9 **Article Number:** 4895 **DOI:** 10.3390/ijerph18094895 **Published:** MAY 2021

Accession Number: WOS:000650271000001

PubMed ID: 34064465

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KALINKA, MARIS		0000-0003-0640-8771

eISSN: 1660-4601

Record 2 of 8

Title: Indicators for the Smart Development of Villages and Neighbourhoods in Baltic Sea Coastal Areas

Author(s): Kalinka, M (Kalinka, Maris); Geipele, S (Geipele, Sanda); Pudzis, E (Pudzis, Edgars); Lazdins, A (Lazdins, Andrejs); Krutova, U (Krutova, Una); Holms, J (Holms, Jurijs)

Source: SUSTAINABILITY **Volume:** 12 **Issue:** 13 **Article Number:** 5293 **DOI:** 10.3390/su12135293 **Published:** JUL 2020

Accession Number: WOS:000550152400001

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Pudzis, Edgars	N-8788-2017	0000-0003-3842-0126

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Record 3 of 8

Title: Sea Natural Resource Potential for Blue Growth Policy Implementation in Baltic Sea Region

Author(s): Pudzis, E (Pudzis, E.); Geipele, S (Geipele, S.); Geipele, I (Geipele, I)

Book Group Author(s): IOP

Source: 2019 5TH INTERNATIONAL CONFERENCE ON GREEN MATERIALS AND ENVIRONMENTAL ENGINEERING **Book Series:** IOP Conference Series-Earth and Environmental Science **Volume:** 453 **Article Number:** 012033 **DOI:** 10.1088/1755-1315/453/1/012033 **Published:** 2020

Accession Number: WOS:000629337500033

Conference Title: 5th International Conference on Green Materials and Environmental Engineering (GMEE)

Conference Date: DEC 27-29, 2019

Conference Location: Guangzhou, PEOPLES R CHINA

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ISSN: 1755-1307

Record 4 of 8

Title: THE DEVELOPMENT OF NANOTECHNOLOGIES AND ADVANCED MATERIALS INDUSTRY IN SCIENCE AND ENTREPRENEURSHIP: LEGAL INDICATORS. A CASE STUDY OF LATVIA (PART FOUR)

Author(s): Geipele, S (Geipele, S.); Pudzis, E (Pudzis, E.); Uzulens, J (Uzulens, J.); Geipele, I (Geipele, I); Zeltins, N (Zeltins, N.)

Source: LATVIAN JOURNAL OF PHYSICS AND TECHNICAL SCIENCES **Volume:** 55 **Issue:** 4 **Pages:** 44-56 **DOI:** 10.2478/lpts-2018-0028 **Published:** AUG 2018

Accession Number: WOS:000445727300005

Author Identifiers:

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Geipele, Ineta		0000-0002-2963-087X
Geipele, Sanda		0000-0002-4721-5944

ISSN: 0868-8257

Record 5 of 8

Title: IDENTIFICATION OF MARITIME TECHNOLOGY DEVELOPMENT MECHANISMS IN THE CONTEXT OF LATVIAN SMART SPECIALISATION AND BLUE GROWTH

Author(s): Pudzis, E (Pudzis, E.); Adlers, A (Adlers, A.); Pukite, I (Pukite, I); Geipele, S (Geipele, S.); Zeltins, N (Zeltins, N.)

Source: LATVIAN JOURNAL OF PHYSICS AND TECHNICAL SCIENCES **Volume:** 55 **Issue:** 4 **Pages:** 57-69 **DOI:** 10.2478/lpts-2018-0029 **Published:** AUG 2018

Accession Number: WOS:000445727300006

Author Identifiers:

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ISSN: 0868-8257

Record 6 of 8

Title: Research on Real Estate Development Opportunities and Identification of the Most Appropriate Segments for Investment in Latvia

Author(s): Pudzis, E (Pudzis, Edgars); Pastars, M (Pastars, Martins); Geipele, S (Geipele, Sanda)

Book Group Author(s): Destech Publicat Inc

Source: 2018 INTERNATIONAL CONFERENCE ON EDUCATION, SOCIAL SCIENCES AND HUMANITIES (ICSSH 2018) **Book Series:** DESTech Transactions on Social Science Education and Human Science **Pages:** 175-180 **Published:** 2018

Accession Number: WOS:000467463300034

Conference Title: International Conference on Education, Social Sciences and Humanities (ICSSH)

Conference Date: MAR 25-26, 2018

Conference Location: Chengdu, PEOPLES R CHINA

Author Identifiers:

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Pudzis, Edgars	AAC-2605-2020	

ISSN: 2475-0042

ISBN: 978-1-60595-551-3

Record 7 of 8

Title: BUSINESS BENEFITS OF IMPLEMENTING THE DESIGN AND BUILD APPROACH IN THE CONSTRUCTION PROCESS

Author(s): Pudzis, E (Pudzis, Edgars); Rozentale-Zalima, L (Rozentale-Zalima, Laura); Geipele, S (Geipele, Sanda); Geipele, I (Geipele, Ineta)

Edited by: Auzina A

Source: RURAL DEVELOPMENT AND ENTREPRENEURSHIP PRODUCTION AND CO-OPERATION IN AGRICULTURE **Book Series:** Economic Science for Rural Development **Volume:** 47 **Pages:** 275-282 **DOI:** 10.22616/ESRD.2018.032 **Published:** 2018

Accession Number: WOS:000450601900032

Conference Title: 19th International Scientific Conference on Economic Science for Rural Development

Conference Date: MAY 09-11, 2018

Conference Location: Jelgava, LATVIA

Conference Sponsors: Latvia Univ Life Sci & Technologies, Fac Econ & Social Dev, Ekonomikas Sabiedribas Attistibas Fakultate LLU, Latvijas Lauksaimniecibas Meza Zinatnu Akademija, Nordic Assoc Agr Scientists, Erasmus+, Remap, Latvia Univ Agr, Fac Econ & Social Dev

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Author	Web of Science ResearcherID	ORCID Number
Pudzis, Edgars	AAC-2605-2020	

ISSN: 1691-3078

ISBN: 978-9984-48-292-7

Record 8 of 8

Title: The Basis for Sustainable Place-based Economic Development: The Role of Cultural Heritage in Latvia, Sweden and Ukraine

Author(s): Pudzis, E (Pudzis, Edgars); Geipele, S (Geipele, Sanda); Geipele, I (Geipele, Ineta)

Edited by: Zhang H

Source: 2017 2ND SSR INTERNATIONAL CONFERENCE ON SOCIAL SCIENCES AND INFORMATION (SSR-SSI 2017) **Book Series:** Advances in Social and Behavioral Sciences **Volume:** 17 **Pages:** 32-36 **DOI:** 10.26602/asbs.2017.17.32 **Published:** 2017

Accession Number: WOS:000418396700005

Conference Title: 2nd SSR International Conference on Social sciences and Information (SSR-SSI 2017)

Conference Date: JUN 28-29, 2017

Conference Location: Moscow, RUSSIA

Conference Sponsors: Singapore Management & Sports Sci Inst, Acad Conf Inst, City Univ Hong Kong

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Pudzis, Edgars	AAC-2605-2020	

ISSN: 2339-5133

ISBN: 978-981-11-2563-8

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Edgars Pudzis dzimis 1985. gadā Rīgā. Banku Augstskolā ieguvis bachelora grādu finansēs, Latvijas Lauksaimniecības universitātē (tagad – Latvijas Biozinātņu un tehnoloģiju universitāte) – maģistra grādu projektu vadībā, Latvijas Universitātē – maģistra grādu telpiskās attīstības plānošanā. Strādājis dažādās valsts institūcijās un pašvaldībās, septiņus gadus vadījis Carnikavas novada pašvaldības Attīstības un plānošanas nodaļu. Papildus tam bijis Rīgas Tehniskās universitātes pētnieks. Patlaban strādā Latvijas Republikas Saeimā, ieņemot Saeimas priekšsēdētājas padomnieka stratēģiskās vadības jautājumos amatu. Zinātniskās intereses saistītas ar ilgtspējīgu attīstību, sabiedrības iesaisti un kopienu aktivizēšanu.